R10-20-C-002

The Confederated Tribes of the Grand Ronde Community of Oregon
Umpqua Molalla Rogue River Kalapuya Chasta

Tribal Council
Phone (503) 879-2301
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1-800-422-0232
9615 Grand Ronde Road
Grand Ronde, OR 97347

FY20 BROWNFIELD CLEANUP GRANT NARRATIVE INFORMATION SHEET

1. Applicant Identification

The Confederated Tribes of the Grand Ronde Community of Oregon
9615 Grand Ronde Road
Grand Ronde, Oregon 97347-9712

2. Funding Requested

a. Grant Type: Single Site Cleanup

b. Federal Funds Requested
   i. $ 500,000
   ii. Applicant is NOT requesting a cost share waiver.

c. Contamination: Hazardous Substances and Petroleum. Breakdown of the amount of funding by contaminant type: $327,665 hazardous substances and $272,335 petroleum

3. Location

a. Oregon City
b. Clackamas County
c. Oregon
d. Tribal fee lands within the ceded territory of the Confederated Tribes of the Grand Ronde Community of Oregon.

4. Property Information

Water Street Block
Former Blue Heron Paper Mill
419 Main Street
Oregon City, OR 97045

5. Contacts

a. Project Director
Jesse White, CTGR Engineering and Public Works Manager
503-879-2404
Jesse.white@grandronde.org
9615 Grand Ronde Road
Grand Ronde, OR 97347

b. Highest Ranking Elected Official
Cheryle Kennedy, Chairwoman
503-879-2352
CTGR.grant@grandronde.org
9615 Grand Ronde Road
Grand Ronde, OR 97347

6. Population

• The project is located in Oregon City, Oregon which has a population of: 36,360.
• The population of the Confederated Tribes of the Grand Ronde Community of Oregon is 5,502.

7. Other Factors Checklist

Other Factors	**Page #**
Community population is 10,000 or less.	N/A
The applicant is, or will assist, a federally recognized Indian tribe or United States territory.	Applicant Confederated Tribes of the Grand Ronde Community of Oregon is a federally recognized Indian Tribe. See Narrative Sheet page 1, Narrative pages 1- 3, 4-6
The priority brownfield site(s) is impacted by mine-scarred land.	N/A
The priority site(s) is adjacent to a body of water (i.e., the border of the priority site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	The site is bounded by the Willamette River. See Narrative pages 1,2, and 3.
The priority site(s) is in a federally designated flood plain.	N/A
The reuse of the priority site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or will incorporate energy efficiency measures.	N/A
30% or more of the overall project budget will be spent on eligible reuse planning activities for priority brownfield site(s) within the target area.	N/A

8. Letter from the State Environmental Authority

Attached is a letter from the Oregon Department of Environmental Quality supporting the Tribe's application for the 2020 EPA Cleanup Grant at the Water Street Block of the Former Blue Heron Paper Mill Site.

Oregon
Kate Brown, Governor

Department of Environmental Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5263
FAX (503) 229-6945
TTY 711

November 18, 2019 *via electronic delivery*

Terri Griffith
EPA Region 10
1200 Sixth Ave., Suite 155
ECL-133
Seattle, WA 98101

Re: DEQ Support of the Confederated Tribes of the Grand Ronde Community of Oregon's application for an Environmental Protection Agency Brownfield Cleanup Grant

Dear Terri:

The Oregon Department of Environmental Quality (DEQ) supports the Confederated Tribes of the Grand Ronde Community of Oregon's (CTGR) application for an EPA brownfield cleanup grant. The cleanup grant will support the tribe's cleanup of a portion of the 23-acre Former Blue Heron Paper Mill Property, a property with over a century of industrial use as a saw mill, woolen mill, and pulp and paper manufacturer. In 2019 the CTGR acquired the property under a Prospective Purchaser Agreement (PPA) with DEQ.

If awarded, the CTGR would use grant funding to clean up portions of the site that are included in the 2019 PPA Scope of Work, which will support the development of the Willamette Falls Legacy Riverwalk Project. As some of the cleanup area may include petroleum contamination, a petroleum eligibility determination is enclosed with this letter.

The Riverwalk Project is a collaborative partnership of local, state, and private stakeholders that are working to provide public access to Willamette Falls. Willamette Falls is the second largest waterfall by volume in the United States, and has been inaccessible to the public for over 150 years. This brownfield cleanup and development will address over a century of legacy contamination and support the project's core values of cultural and environmental stewardship, public access, economic development, and healthy habitats.

DEQ supports the cleanup and redevelopment of this regionally significant brownfield property, and is pleased to support the CTGR's cleanup grant application. Please feel free to contact Rebecca Wells-Albers, DEQ Northwest Region Brownfield Coordinator at 503-229-5585 with any questions.

Sincerely,

Nina DeConcini
Administrator, DEQ Northwest Region
Enclosure

cc (email): Rebecca Wells-Albers, NWR/DEQ
Paul Seidel, NWR/DEQ
Kevin Parrett, NWR/DEQ
Mark Pugh, NWR/DEQ
Patricia Atkins, HQ/DEQ
Jennifer Biesack, CTGR
Stacia Martin, CTGR
Jesse White, CTGR

FY20 Brownfield Cleanup Grant Narrative/Ranking Criteria

1. PROJECT AREA DESCRIPTION AND PLANS FOR REVITALIZATION

a. Target Area and Brownfields i. Background and Description of Target Area

The geographic target area is located in the Willamette Falls Downtown District of Oregon City, Oregon. Since time immemorial, the area of Willamette Falls has been an extremely important place for cultural, economic, and trade activity. This large waterfall on the Willamette River, second only to Niagara Falls in terms of water volume in the U.S., creates a naturally advantageous location for salmon fishing, harvesting Pacific lamprey, and gathering plants for food and fiber. The immediate vicinity of Willamette Falls is the ancestral homeland of the Clowwewalla people, who historically controlled the abundant fishing and trade at the Falls.

The arrival of Euro-American fur trappers in the 1820s expanded the already-flourishing trade and further established Oregon City as a hub for economic activity in the Pacific Northwest. The locale soon attracted large numbers of Euro-American settlers and became known as the "End of the Oregon Trail". In 1855, the U.S. entered into a treaty with several confederated tribes of the Willamette Valley region including the Clowwewalla. The ratified treaty provided for the cession of Tribal homelands to the U.S. in exchange for certain rights and benefits. The following year, the U.S. Army began forcibly removing the Clowwewalla, the neighboring Clackamas, and other tribes from their Willamette Valley homelands onto the Grand Ronde Indian Reservation approximately 55 miles away. The Clowwewalla, Clackamas, and their descendants became members of the Confederated Tribes of Grand Ronde.

By 1856, Euro-American industrialization of the area was already underway, with a sawmill and multiple businesses operating in the immediate vicinity. Within the following four decades, the target area was developed with various paper mills, a woolen mill, a tannery, a flour mill, additional sawmills, and other industrial manufacturing and storage facilities. The settler population celebrated an industrial milestone with the construction of the Willamette Falls Dam in the 1880s, which would provide electric power to Portland, Oregon, and become the nation's first long distance electric transmission project. Meanwhile, the Clowwewalla and Clackamas continued to fish for salmon and gather Pacific lamprey at Willamette Falls; they were able to return to their homelands from the Grand Ronde Indian Reservation by securing temporary permits from the Indian Agent.

The 20th century saw further expansion and heavier use of the target area for industry. By 1910 there were two full-scale paper mills in operation, and by 1959 the entirety of the Site was operating as a pulp and paper mill. Other notable industrial uses of the target area included a tannery and soap manufacturing, at least three bleach houses, an automobile repair shop, two dye houses, several fuel storage tanks, and two electrical substations. Stockpiles and storage of both liquid and solid industrial products were prevalent. This era unfortunately also saw major changes in Federal Indian policy. By 1954, the Tribe's land ownership and rights had been eroded significantly, and the passage of the Western Oregon Termination Act severed the Federal-Tribal trust relationship.

In 1983, the signing of the Grand Ronde Restoration Act restored the Tribe's Federal recognition and treaty rights; five years later a portion of the Grand Ronde Reservation was returned to the Tribe. However, the Tribe's limited capacity made exercise of its off-reservation rights less immediate. The descendants of the Clowwewalla and Clackamas were temporarily absent from the Falls. Meanwhile, the target area continued to operate as a highly industrialized zone, with hydroelectric and pulp/paper operations dominating the landscape. In the late 1990s the Tribe resumed harvesting Pacific lamprey at Willamette Falls; the people had returned and would continue to exercise their rights at the Falls. Changing times and changing markets in the 21st century would cause the Blue Heron Paper Mill, the dominant use of the target area, to suddenly announce its closing and shutdown in 2011. Soon after, the governments of Oregon, Clackamas County, Oregon City, and Metro (a regional government) began exploring public and non-industrial uses of the area. In 2016, a rule change from the State of Oregon allowed the Tribe to dipnet for salmon at Willamette Falls, and the Tribe caught returning

salmon in this way for the first time in over 100 years. Two years later, the Tribe registered with the State and constructed a salmon fishing platform over the river at the base of the Falls in the exact same place of a traditional Tribal platform photographed in the 1880s. In 2019, the Tribe purchased the abandoned Blue Heron Paper Mill site at Willamette Falls (vacant for over seven years), committing to work in partnership with the four governments mentioned above on the planning and design of the Willamette Falls Riverwalk Project. As part of the purchase, the Tribe entered into a Prospective Purchaser Agreement (PPA) with the Oregon Department of Environmental Quality which directs and guides the property's remediation. The Tribe plans, among other uses, to resume and continue place-specific cultural practices on the property that are thousands of years old.

ii. Description of the Brownfield Site ("Site" or "Water Street Block").

The Water Street Block is located 419 Main Street, Oregon City, Oregon 97045, of which the northernmost portion is herein referred to as the "Site." The Site is located near the southeast bank of the Willamette River. The Oregon City zoning map shows the Site with a zoning designation of Willamette Falls Downtown (WFD) District that applies to the historic Willamette Falls area bordered by US Highway 99E/McLoughlin Boulevard and the Oregon City downtown district to the north and east, and the Willamette River to the west and south.

The Site comprises roughly one city block (northern portion of the tax lot) and is described as a portion of the Plat "Oregon City" and other lands located in the northwest ¼ and southwest ¼ of Section 31, Township 2 South, Range 2 East, Willamette Meridian, Oregon City, Clackamas County, Oregon.

The Water Street Block was developed in the beginning 1850s with several small businesses including a hotel, hardware store, restaurant, drug store, storage, barber, machine shops and foundry. By the 1940s, the paper industry expanded into the block from the south of the property and the Water Street Block uses shifted to support the paper industry. By the 1960s, the entire Water Street block was dedicated to paper-related uses. In the 1960s and 1970s, the buildings currently on the Site were constructed, including the water filter plant, control tower, fire hall, guard shack, and office. These buildings have been vacant since the Blue Heron Paper Mill ceased operations in 2011.

Proposed Site cleanup includes the following buildings, infrastructure, and accompanying areas (e.g. parking lots, roadways, underground utility corridors): Building #2 - Water Filter Plant, Building #3 - Control Tower, Building #4 – Fire Station, Building #5 – Office, Building #6 - Guard Shack, Parking lots along vacated Main and Fourth Streets, and stormwater utility lines and utility corridor backfill beneath vacated Fourth and Main Streets.

Site data are not yet sufficiently detailed to construct a detailed Conceptual Site Model (CSM) that would establish source-to-exposure pathways; however, the available data support the following interpretations.

- Filter media - The water treatment plant filter media is specifically mentioned in the DEQ PPA Scope of Work (SOW) as requiring evaluation to assess the need for remediation. This media has and contains COCs that are problematic to the Portland Harbor Superfund Site. The water treatment plant filter media was sampled (Samples CS-Filter East and CS-Filter West) and analyzed for dioxins, metals and PCBs. PCBs and dioxins are present at levels requiring cleanup. For PCBs, Aroclor 1254 was detected at a concentration of 0.162 mg/kg, exceeding the DEQ Clean Fill and DEQ Upland Clean Fill criteria (each 0.041 mg/kg) (DEQ 2019a), indicating that during Site redevelopment the soil must be placed into a lined landfill. A total PCB concentration exceeded the Portland Harbor Record of Decision (ROD) Cleanup Level (0.012 mg/kg), indicating that media handling during construction work will need to be designed to prevent media releases to surface water. For dioxins, the filter media dioxin total equivalency quotient (TEQ) results exceed the Vapor Intrusion into Buildings and Volatilization to Outdoor Air RBCs for Urban Residential and Occupational scenarios (Risk-Based Concentration [RBCs] of 0.024 and 0.13 mg/kg, respectively).
- Soil. Soil in the southern portion of the Site is contaminated with petroleum hydrocarbons and metals. This area is located adjacent to a sewer line and is also upgradient and proximal to the Fire Station and Water Filter Plant. The nearby sewer manhole has petroleum vapors, therefore indicating that utility line backfill along vacated Fourth Street may be serving as a preferential pathway for contaminant migration (via perched groundwater and vapors). It is suspected that petroleum extends beneath the Fire Station and Water Filter Plant. Specifically:

  - Location F07-01 at the southern portion of water filter plant redevelopment area on Figure 3. Soil at 0.5 to 1 feet bgs at this location is contamination by diesel- and heavy oil-range organics (2,200 and 7,400 mg/kg, respectively), many PAHs, PCBs, and chromium and copper. The estimated carcinogenic PAH TEQ (28.32 mg/kg) exceeds many RBCs and the Portland Harbor ROD Cleanup Level (0.012 mg/kg). A PCB Aroclor 1221 concentration of 0.11 mg/kg exceeded the DEQ Clean Fill and DEQ Upland Clean Fill criteria (each 0.041 mg/kg) indicating that the soil must be placed into a lined landfill. A total PCB concentration exceeded the Portland Harbor ROD Cleanup Level (0.012 mg/kg). Thus, soil handling during construction work in this area will need to be designed to prevent soil releases to surface water.
  - Boring B-18 at south portion of water filter plant redevelopment area. Soil at 0 to 5 feet bgs contained low level contamination by diesel- and heavy oil-range organics (2.13 and 6.64 mg/kg, respectively) and several PAHs, with an estimated carcinogenic PAH TEQ (0.02 mg/kg) exceeding the Portland Harbor ROD Cleanup Level (0.012 mg/kg). Thus, soil handling during construction work in this area will need to be designed to prevent soil releases to surface water.
- Storm/sanitary sewer petroleum vapors. This is likely caused by the petroleum plume reaching the backfill around the sewer line and following this more permeable pathway until an opening is found which then allows the petroleum to enter the sewer itself.
- Regulated building materials. Based on the age of the buildings/structures it is likely that regulated building materials (RBMs), including asbestos and lead-based paint, are present in numerous locations. A comprehensive RBM survey will need to be completed. Potential environmental health hazards associated with the existing buildings and structures at the former Blue Heron Paper Mill include asbestos, lead, mercury, polychlorinated biphenyls (PCBs) and other heavy metals. This is based on Wood's review of past hazardous or regulated building material surveys and limited on-site observations made in June, July, and August 2019. The health hazards are associated with a variety of asbestos-containing materials, lead-containing paints or coatings (including paint chips observed on site surfaces), and mercury- and PCB-containing building or electrical-system components.
- Filter Plant Transformers. At least two transformers are present in the water filter plant (second floor).
- Large freight elevator. Elevator is present at shared wall of the water filter plant and former fire station. The hydraulic system driving this elevator is not well defined and may include subsurface or above surface hydraulic reservoirs.
- Filter Plant pump room. The basement floor of the water filter plant was a pump room, and hydraulic systems related to the pump room are not yet defined.
- Filter Plant Water – Water in the filter plant will need to be removed. Chemical concentrations in the water are unknown.

b. Revitalization of the Target Area

i. Reuse Strategy and Alignment with Revitalization Plans

The reuse strategy for the Former Blue Heron Papermill Brownfield Site is to be the location of the Willamette Falls Legacy Project Riverwalk with redevelopment of the site consistent with the Oregon City's Willamette Falls Downtown District Mixed Use zoning designation and the associated Framework Master Plan adopted by the City. The Water Street Block will be the gateway to the Riverwalk.

The Willamette Falls Legacy Project is a partnership including the State of Oregon, Clackamas County, Oregon City, and Metro. This partnership has been charged with planning and implementation of the Willamette Falls Riverwalk project and is funded by the State of Oregon and Metro's bond measures as well as other local sources. The partnership has been working since 2012 on this project. There have been many studies related to the Riverwalk and redevelopment of the Former Blue Heron Paper Mill Brownfield site, all of which support private-public partnerships in future development. The planning has identified opportunities as well as challenges to the site's redevelopment and provides information about the location of key infrastructure, and potential for adaptive re-use of some existing buildings in order to maximize outcomes in the four values throughout redevelopment. Redevelopment and revitalization of the site is consistent with Metro's 2040 Growth Concept, the Willamette River Greenway, the Clackamas County Economic Landscape, and Oregon City's planned comprehensive plan amendments.

ii. Outcomes and Benefits of Reuse Strategy

As shown in multiple studies and reports, remediation and redevelopment of the Former Blue Heron Paper Mill Brownfield Site will stimulate economic development in a myriad of ways, including tourism, job creation, and property value increases. This site is in a unique setting that can be used to drive demand for new development and bring a broad regional pull. Market studies have identified highest and best use of the area includes the Riverwalk and related mixed use development such as hotel, housing, retail, office, food and beverage and other tourist amenities. Because the site is within an Opportunity Zone there will be additional incentives for redevelopment investment into these projects.

Further, the grant will facilitate the creation of park and greenway spaces and prepare the area for construction of high quality open space that maximizes the view potential to Willamette Falls and create public open space and river access. Cultural history (Native Americans, Oregon Trail, and early Oregon History) will be a focal point of development to drive tourism interest and spending in downtown Oregon City.
The Tribe has a proven track record of incorporating energy efficiency measures into its new construction projects (such as solar array systems, energy efficient lighting and appliances, and beneficial re-use irrigation systems) and anticipates this continuing with future redevelopment of the site.

c. Strategy for Leveraging Resources. i. Resources Needed for Site Reuse.

The Tribe has expended significant funds toward assessment and cleanup of this property, including a comprehensive and updated Phase I Environmental Assessment. The Tribe has committed the staff time of its Project Manager and Senior Staff Attorney for management and compliance efforts associated with this grant. The Tribe has funded the evaluation of the administration building parking lot for UST presence and contamination and the regulated building materials survey for the administration building. These pieces will all be used toward the tasks of this grant. The DEQ oversight costs are estimated at 10-15% of total project costs, which the Tribe will be responsible for.

The Tribe was selected as one of three featured Brownfields projects at the bi-annual National Brownfields Conference, and will be awarded consulting and other resources.

The Tribe is anticipating applying for additional funding as follows: (i) 2040 Metro Planning and Development Grant (conceptual and comprehensive planning up to $350,000), (ii) Technical Assistance grant from Business Oregon ($60,000), (iii) The Tribe is planning to coordinate with Oregon City on its Regional Funds T2020 Transportation Flexible Fund Allocation with respect to the Water Street/Highway 99 intersection to support safe ingress and egress to the site, (iv) The Tribe is also evaluating tribal grants that may be available to fund assessment and cleanup activities at the Site.

ii. Use of Existing Infrastructure

The Tribe plans to evaluate the existing infrastructure on the site to determine if they are suitable for use in redevelopment. The Tribe plans to reuse the existing Main Street and street grid for access and site mobility.

2. COMMUNITY NEED AND COMMUNITY ENGAGEMENT

a. Community Need. i. The Community's Need for Funding

The community's need for funding may be best examined separately through the lenses of the two user groups anticipated to benefit most from the target area's assessment: (A) Tribal members of the Confederated Tribes of Grand Ronde, and Tribal families and/or descendants, and (B) public visitors to the proposed Willamette Falls Legacy Project.

A. Tribal members of the Confederated Tribes of Grand Ronde, Tribal families, and/or descendants (aka "Tribal community"). The Tribal community, like most American Indian, Alaska Native, and Native Hawaiian communities in the U.S., is a historically and currently disadvantaged population. The Tribal community is disadvantaged socially and economically, with a median income well below the Oregon statewide median. The enrolled Tribal membership is just over 5,500.

B. Residents of Oregon City and public visitors to the proposed Willamette Falls Legacy Riverwalk Project. Oregon City has a population of 35,483, and the median household income is $68,813, less than the median household income of nearby West Linn by nearly one-third. The planned Riverwalk and other parts of

the target area's proposed Willamette Falls Legacy Project are expected to be visited by people from across the U.S. and around the world as a recreational, tourism, cultural and ecological attraction. The assumption in this application will be that residents of Oregon City will make up the majority of the total public visitorship.

ii. Threats to Sensitive Populations

(1) Health or Welfare of Sensitive Populations

A. Tribal community. The Tribal community is Native American, a recognized minority group. Due to both genetics and Tribal cultural practices such as the predominance of wild caught fish in the diet, the Tribal community is especially susceptible to health issues caused or exacerbated by environmental contaminants. Some of the more persistent and impactful industrial contaminants known to humankind, such as polychlorinated biphenyls (PCBs), dioxins, and furans, are present in the target area. Tribal culture encourages and often requires prolonged periods of direct physical contact with water, soils, and other media in the practice of traditional activities such as fishing and gathering. Children and pregnant mothers are especially encouraged to take direct part in traditional practices, so the learning process may begin early. Tribal Elders, another sensitive population, are likewise encouraged to participate so that they may impart their traditional knowledge to the next generations via oral tradition and demonstration.

B. Oregon City residents and Public Visitors. The proposed Willamette Falls Legacy Riverwalk Project is intended to serve a highly diverse visitorship in terms of age, gender, ethnicity, nationality, and other traits. However, children especially are intended as a major user group, due to the hands-on educational and interactive opportunities present in the target area.

(2) Greater Than Normal Incidence of Disease and Adverse Health Conditions

A. Tribal community. Native Americans have long had higher per capita incidences of disease and other health issues than the national average, sometimes by a multiplier of 5 or greater. Unfortunately this trend continues today: American Indians and Alaska Natives born today have a life expectancy that is 5.5 years lower than the U.S. all races population. Native Americans are 1.8 times more likely to die from influenza and pneumonia, 3.2 times more likely to die from diabetes, and 4.6 times more likely to die from chronic liver disease than the U.S. all races population.

B. Oregon City residents and Public Visitors. Currently it is difficult to estimate the precise makeup of the population who will visit the proposed Willamette Falls Legacy Project. However, it would be logical to assume that a greater-than-average proportion of the visitors would be children and the elderly, who are especially susceptible to disease and adverse health conditions.

(3) Disproportionately Impacted Populations

A. Tribal community. The degrees and kinds of impacts that Native Americans have felt due to environmental contamination are well documented. In Oregon, this is especially true regarding water quality impacts. The Tribal community has felt a much larger proportion of impacts from water quality issues than the overall population due to a number of factors, including disparate income level and social status, prolonged and heightened exposure to contaminants during cultural activities, and greater susceptibility to health issues caused or exacerbated by contaminants.

B. Oregon City residents and Public Visitors. As stated above, the proposed Willamette Falls Legacy Project is intended to serve a highly diverse visitorship in terms of age, gender, ethnicity, income level, and other traits. While it is difficult to estimate precise numbers, it would be safe to say that some portion of the total visitorship will come from communities disproportionately impacted by contamination and other environmental issues.

b. Community Engagement. i. Project Partners. ii. Project Partner Roles

Partner	Point of contact	Specific role in the project
State of Oregon Department of Environmental Quality (DEQ)	Mark Pugh, Project Manager 503 229-5587 pugh.mark@deq.state.or.us	Oversight of PPA Scope of Work
Oregon City	Tony Konkol, City Manager (503) 496-1582 Tkonkol@orcity.org	Site planning coordination
Clackamas County	Jon Legarza, Interim Economic Development Manager, Clackamas County 503-742-4366 jlegarza@clackamas.us	Site planning coordination
Metro	John Blasher, Director, Parks and Nature 503-797-1948 jon.blasher@oregonmetro.gov	Site planning coordination
Willamette Falls Trust	Andrew Mason, Executive Director 503-994-6800 andrew@willamettefallstrust.org	Education and outreach, planning
Willamette Falls Legacy Project	Brian Moore, Project Manger 503-797-1761 Brian.Moore@oregonmetro.gov	Site planning coordination

i. Incorporating Community Input. The Tribe intends to stay engaged with the community and host future public events. Further, the Tribe participates in weekly meetings with Oregon City, Metro, Clackamas County, the State of Oregon, and the Willamette Falls Trust and provides regular updates as to the status of the assessment and cleanup projects planned and underway at the site, and seeks feedback from these entities on a regular and continuing basis.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

a. Proposed Cleanup Plan. The proposed cleanup plan is to remove hazardous/regulated building materials (asbestos, lead, and zinc), PCBs in filter media, and contaminated soils present at the Site, and mitigate petroleum vapors, such that any potential exposures do not exceed levels protective of human health and the environment. As discussed in the Site ABCA, the recommended cleanup plan includes removal of contaminated filter media, building/structure demolition, vapor mitigation (engineering controls), removal or isolation of contaminated sewer line backfill, removal of "hot spot" soils, capping of moderately contaminated soils, and institutional controls. The recommended cleanup alternative meets requirements of the DEQ PPA SOW, and will result in a reduction in contaminant mass. Contaminants of Concern (COC) anticipated to be present in the cleanup area (buildings, soil, sediment, water treatment plant filter media, and water [seeps, groundwater, and water treatment plant]) include: Asbestos**,** Lead-based paint**,** Metals (including hexavalent), chromium, Petroleum hydrocarbons, Polychlorinated biphenyls (PCBs),Volatile Organic Compounds (VOCs),Semi volatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbons (PAHs), and Dioxins/Furans.

Cleanup standards for the Site will be the DEQ risk-based concentration (RBC) for the Urban Residential receptor. In addition, cleanup will be compliant with the Portland Harbor Record of Decision (ROD) in that contaminant concentrations above Principal Threat Waste (PTW) thresholds will be cleaned up. Soils at the Site also will be compared to DEQ Clean Fill standards and Portland Basin background metals concentrations, and the following RBCs:

- Soil
  - Soil Ingestion, Dermal Contact, and Inhalation - Urban Residential
  - Soil Ingestion, Dermal Contact, and Inhalation - Occupation
  - Soil Ingestion, Dermal Contact, and Inhalation - Construction
  - Soil Ingestion, Dermal Contact, and Inhalation - Excavation Worker

- Vapor Intrusion into Buildings - Urban Residential
- Vapor Intrusion into Buildings – Occupational

- Water
  - Ingestion, Dermal & Inhalation from Tap water - Urban residential
  - Ingestion, Dermal & Inhalation from Tap water - Occupational
  - Groundwater in Excavation - Construction and excavation Worker
  - Vapor Intrusion into Buildings - Urban residential
  - Vapor Intrusion into Buildings – Occupational

b. Description of Tasks/Activities and Outputs

Task 1: Removal of Contaminated Filter Media and Hazardous Building Material Abatement/Demolition

Task 2: Vapor Mitigation (engineering controls) and Isolate or Remove Contaminated Sewer Line Backfill

Task 3: Capping and Removal of Contaminated Soils

i Project Implementation

- *Task 1: Removal of Contaminated Filter Media and Hazardous Building Material Abatement/Demolition*

The water treatment plant filter media is specifically mentioned in the PPA SOW, and contains PCBs and dioxins at levels requiring cleanup. Filter media will be removed and disposed of at an appropriate landfill (demolition, Subtitle C, or Subtitle D as appropriate). Buildings and associated structures (hydraulic hoists, hydraulic pump systems, and transformers) will be demolished and disposed of at a landfill. In accordance with the PPA, a comprehensive (demolition-level) survey will be completed for asbestos, lead-based paint, mercury, and PCBs. Demolition plans will be prepared and will include:

- Identification of building utilities and description of each utility termination
- Description of hazardous building material abatement plan
- Description of plant dewatering plan
- Description of demolition scope of work
- Description of material re-use/recycling plan
- Erosion and sediment control plan
- Description of final site condition and restoration requirements.

Periphery monitoring of the work zones for air-borne asbestos will be performed during the demolition activities.

- *Task 2. Vapor Mitigation (engineering controls) and Isolate or Remove Contaminated Sewer Line Backfill*

Storm/sanitary sewer petroleum vapors are likely caused by a petroleum plume reaching the backfill around the Fourth Street sewer line and following the more permeable pathway(s) until an opening is found which then allows the petroleum to enter the sewer itself. Based on follow-up assessment of the petroleum contamination and sewer-line vapors detected at the southeast corner of the cleanup area, engineering controls would be installed at the Site on an as-needed basis (likely within utility backfill materials). These engineering controls would consist of a passive vapor mitigation system comprised of a network of perforated pipes in trenches, covered with gravel, and overlain by a heavy-duty vapor barrier. The passive venting system would allow accumulated vapors to vent to outdoor air, and if desired, could be enhanced through the use of a solar-powered low power fan to maintain a minimal negative pressure gradient in the system. Because a passive venting system is dependent upon the difference between the in-ground air pressure and the barometric pressure outside, the pressure gradient in the system can fluctuate from positive (air moving into the ground backwards through the system) to negative (air moving out of the ground as the system intends). By installing a low-pressure fan, which only requires minimal power, the system can maintain a negative pressure gradient while the fan is operational. The fans typically use less than 300 watts and can easily be tailored for solar powering. Solar power also alleviates the work and costs associated with power connections and infrastructure. Cut-off collars also may be installed at certain points of the sewer system to prevent migration of vapors through the backfill material.

- *Task 3. Capping and Removal of Contaminated Soils*

Soil in the southern portion of the Site is contaminated with petroleum hydrocarbons and metals. This area is located adjacent to a sewer line and is also upgradient and proximal to the Fire Station and Water Filter Plant. The nearby sewer manhole has petroleum vapors, therefore indicating that utility line backfill along vacated Fourth Street may be serving as a preferential pathway for contaminant migration (via perched groundwater and vapors). It is suspected that petroleum extends beneath the Fire Station and Water Filter Plant buildings, and removal of buildings will be necessary to access contaminated soils. After building removal, any areas of exposed soil would be sampled using incremental sampling methodology (ISM) methods to evaluate concentrations of COCs in shallow soils. Areas that exceed applicable DEQ RBCs would be capped and areas that exceed "hot-spot" thresholds or "principal threat waste" thresholds would be excavated and disposed of at an appropriate landfill.

ii Anticipated Project Schedule

Project plans will be submitted in draft form to DEQ approximately 3 months after EPA approval of a Cooperative Agreement (CA). We anticipate DEQ review and work plan revisions to require approximately 3 months, immediately followed by demolition/excavation contractor procurement which is anticipated to take another 3 months. Demolition/construction activities are expected to take approximately 6 months with an additional 3 months for follow-on (closeout) reporting. The project is anticipated to be fully completed approximately 18 months after EPA approval of the CA.

iii Task/Activity Lead

The CTGR will be the lead entity overseeing the cooperative agreement with EPA, and managing Task 1, Task 2, and Task 3. DEQ will oversee activities pursuant to the PPA.

iv Outputs

Draft and Final work plans (quality assurance project plan [QAPP], Sampling and analysis plan [SAP], site-specific health and safety plan [HASP], contractor specifications, and reports. Documents will be submitted in draft and final (incorporating DEQ and EPA comments) forms. Outputs will also include regulatory agency approval letters (including State/Tribal Historic Preservation Office [THPO/SHPO]). All ground-disturbing activities will be subject to the Tribe's Inadvertent Discovery Plan.

c. Cost Estimates

Task 1: The known chemical hazards at and near the water treatment plant include PCBs, petroleum, PAHs, heavy metals and dioxins. The estimated Project Task 1 costs include preparation of demolition plan ($20,000), permitting ($15,250), hazardous materials survey and abatement for asbestos, lead based paint, mercury, PCBs, Universal Waste and mold ($15,100), pre-construction meetings ($5,550), field work ($486,800) and final report ($7,800), for a total estimate of $550,500.

Task 2: The Project Task 2 work will isolate or remove the petroleum and associated vapors in the contaminated sewer line and associated utility backfill. This will involve pre-design sampling planning and implementation ($10,000), design preparation ($20,000), construction/installation and field oversight ($150,000), a final installation report ($15,000), and two years of performance monitoring ($20,000), for a total estimate of $215,000. Environmental professional labor will be performed at a blended rate of $150 per hour, and will comprise an estimated $65,000 of the total.

Task 3: The Project Task 3 work assumes removal of contaminated soil to 5 feet bgs under 15% of the demolition footprint to removed stained soil, waste characterization and disposal (100% to a Subtitle D landfill), backfill import, and capping the non-excavated portion to 2 feet. This will involve pre-design sampling planning and implementation ($10,000), design preparation ($20,000), construction/installation and field oversight ($200,000, including removing approximately 1,200 cubic yards of soil $180,000 at $150 per cubic yard), and a final installation report ($15,000), for a total estimate of $245,000. Environmental professional labor will be performed at a blended rate of $130 per hour, and will comprise an estimated $65,000 of the total.

The total estimate for all three tasks described above is $1,020,500. The Tribe intends to fund 58.79% of the total project by utilizing the EPA cleanup grant and providing the 20% match as described in the EPA Project Budget Table below. The Tribe will utilize its own resources and identify additional resources to fund the remaining amounts.

Budget Categories		Project Tasks			TOTAL
		Task 1 - Removal of Contaminated Filter Media and Building Demolition	Task 2 - Vapor Mitigation Isolate or Remove Contaminated Sewer Line Backfill	Task 3 - Capping and Removal of Contaminated Soils	
Direct Costs	Contractual (Hazardous Substances)	$327,665			$327,665
	Contractual (Petroleum)		$127,288	$145,047	$272,335
Total Budget (Total Direct Costs + 20% matching funds)					$600,000

d. Measuring Environmental Results

Success in implementing the grant will be measured by tracking both Outputs and Outcomes. Outputs to be tracked will include the submittal (and approval by DEQ and EPA) of the various workplans and reports for the Site. Outcomes to be tracked will include the amount of space cleared for future redevelopment, and the levels of RBCs achieved (i.e. Urban Residential vs Occupational).

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

Provide responses for the organization that is applying for funding (i.e., the applicant/lead coalition member).

b. Programmatic Capability: (i) Organizational Structure and (ii) Description of Key Staff

The nine-member Tribal Council is the elected government of the Grand Ronde Tribe. For carrying out Tribal laws and policies, Tribal Council relies on its executive staff who oversee more than fifteen departmental managers. The Tribe has over 300 employees in departments such as Education, Health, and Housing. The Finance Department is led by the Finance Officer and oversees accounting and financial reporting for grants. The main positions carrying out these functions are the Controller, Budget Manager, and Staff Accountant. Since the Tribe's Restoration in 1983, the Tribe has managed over $200 million in federal and state funding (including EPA grants 106 and GAP since the late 1990s). The Tribe also has a Tribal Attorney's Office and an Audit Services Department who ensure compliance and oversight with respect to funding agreements.

Key staff are as follows: (i) Jesse D. White, PE, Mr. White is the Project Director for this grant and the Project Manager for the DEQ PPA. He will lead all assessment, cleanup and remediation efforts. Mr. White has over 8 years of experience managing projects for the Tribe, including environmental assessment and remediation. (ii) Jennifer Biesack, JD, Senior Staff Attorney. Ms. Biesack will perform all legal review, contractual and regulatory compliance activities with respect to this grant. She has more than 12 years experience with grant agreements, grant compliance, and related transactions. (iii) Stacia Hernandez, Chief of Staff. Ms. Hernandez will coordinate all public and community outreach efforts and lead collaboration efforts with project partners. Ms. Hernandez is a Tribal member and has been employed by the Tribe for over 10 years. (iv) Kim Rogers, MPA. Planning & Grants Manager, Mr. Rogers will assist with grant reporting and modifications. He has 20 years' experience with federal grant projects and; (v) Gloria Schwalger, Staff Accountant. Ms Schwalger will prepare grant related financial reports. Tribal staff will coordinate with staff in the lands, natural resources, culture/THPO, and other departments as needed.

i. Acquiring Additional Resources

The Tribe has adopted a procurement ordinance and a procurement policy governing purchases of goods and services which set forth the competitive selection processes. The procurement policy requires compliance with any federal funding source requirements with respect to purchasing and program compliance. The Tribe

will comply with EPA's solicitation clauses in the performance of this grant. The Tribe's legal department reviews contracts and agreements and its procurement department facilitates purchase orders and payments. The Tribe will utilize the required procurement procedures in selecting consultants to do the work of the grant.

a. Past Performance and Accomplishments

i. Has Not Received an EPA Brownfields Grant but has Received Other Federal or Non-Federal Assistance Agreements

(1) Purpose and Accomplishments

1. **Portland Harbor Site EPA Superfund** State-Tribal Cooperative Agreement (EPA-CEP-02) $384,256 award (18 months thru 2020) for ongoing tribal representation and involvement in EPA CERCLA by Grand Ronde (fiscal agent), Nez Perce, Siletz, Umatilla and Warm Springs. Activities include meetings with a shared environmental contractor regarding harbor cleanup technical data, site visits, briefing their own councils, and review and comment on documents on cleanup. Project is roughly a third completed and has been successful in providing informed Tribal response. Outputs are review of documents, shared oversight of contractor and providing required reports to EPA.
2. **Performance Partnership Grant EPA** Federal-Tribal Cooperative Agreement (BG00J40402-4) 2016 – 2019: $958,487. The purpose of this grant is to provide the Tribe with General Assistance Program (GAP) funding, Clean Water Act Section 106 Water Quality funding, and Clean Water Act Section 319 Nonpoint Source funding. The primary benefit of GAP is to build Tribal capacity to understand and protect environmental resources. The areas of emphasis for this grant period is identified within the approved EPA and Tribal Environmental Plan (ETEP) and activities include attending environmental meetings and workgroups, keep Tribal Council abreast of environmental issues, salmon and lamprey recovery planning, climate change planning, and environmental resources protection and planning. The primary benefit of 106 Water Quality is to continue and expand monitoring of water quality in and around Tribal lands and activities include monitoring related to temperature, nutrients, bacteria, conductivity, turbidity, dissolved oxygen, and pH. The primary benefit of 319 Nonpoint Source is on-the-ground restoration of nonpoint pollution and the prevention of new sources. For this project period, the 319 funding helped to mitigate nonpoint source concerns along 300 feet of Agency Creek and 5 acres along Cosper Creek.
3. **Bureau of Indian Affairs Tribal Wildlife Grant** Oak Habitat Restoration at Rattlesnake Butte 3 Agreement (F18AP00616) 2018: $167,713. The purpose of this grant is to provide the Tribe with funding to implement Phase 1 habitat restoration on 97 acres within the 269-acre Rattlesnake Butte Wildlife Area, a property held in conservation status for fish and wildlife habitat. Specifically, this funding provided $22,194 in current staff wages and fringe for project management, $8,111 in contractual costs for a baseline habitat assessment on the 269 acres, $129,890 in contractual costs for habitat improvements including mechanical and chemical treatments on 97 acres, and $7,519 in indirect charges for contract support costs.

(2) Compliance with Grant Requirements

1. **Portland Harbor Site EPA Superfund** State-Tribal Cooperative Agreement (EPA-CEP-02) 2019. The Tribe is on track with the workplan and schedule and the required reporting. The Tribe anticipates meeting the stated outputs by the projects end in December 2020. Financial and program reporting has been completed and acceptable to EPA.
2. **Performance Partnership Grant EPA** Federal-Tribal Cooperative Agreement (BG00J40402-4) 2016 – 2019: $958,487. The Tribe is on track with the workplan, schedule, and required reporting requirements. The Tribe anticipates meeting the stated outputs by the project end which is December 31, 2019. Financial and program reporting has been completed and accepted by EPA.
3. **Bureau of Indian Affairs Tribal Wildlife Grant** Oak Habitat Restoration at Rattlesnake Butte 3 Agreement (F18AP00616) 2018: $167,713. The Tribe is on track with the workplan, schedule, and required reporting requirements. The Tribe anticipates meeting the stated outputs by the project end which is May 31, 2020. Financial and program reporting has been completed and accepted by BIA.

The Confederated Tribes of the Grand Ronde Community of Oregon
Umpqua Molalla Rogue River Kalapuya Chasta

Tribal Council
Phone (503) 879-2301
Fax (503) 879-5964

1-800-422-0232
9615 Grand Ronde Road
Grand Ronde, OR 97347

Threshold Criteria for Cleanup Grants

1. **Applicant Eligibility**

The applicant, the Confederated Tribes of the Grand Ronde Community of Oregon ("Applicant," "Tribe," or "CTGR"), is a federally-recognized Indian tribe and eligible to receive this grant.

2. **Previously Awarded Cleanup Grants**

None.

3. **Site Ownership**

The Confederated Tribes of the Grand Ronde Community of Oregon has owned the site since August 15, 2019. It has fee title evidenced by a recorded statutory warranty deed.

4. **Basic Site Information**

Identify:
a) Name of the site: Water Street Block of the former Blue Heron Paper Mill
b) Address of the site: 419 Main Street, Oregon City, Oregon 97045
c) Current owner of the site: The Confederated Tribes of the Grand Ronde Community of Oregon

5. **Status and History of Contamination at the Site**

Identify:

a) Whether this site is contaminated by hazardous substances or petroleum;

This Site is contaminated by both hazardous substances and petroleum.

b) The operational history and current use(s) of the site.

The Water Street Block was developed in the beginning 1850s with several small businesses including a hotel, hardware store, restaurant, drug store, storage, barber, machine shops and foundry. By the 1940s, the paper industry expanded into the block from the south of the property and the Water Street Block uses shifted to support the paper industry. By the 1960s,

the entire Water Street block was dedicated to paper-related uses. In the 1960s and 1970s, the buildings currently on site were constructed, including the water filter plant, control tower, fire hall, guard shack, and office. The Water Street Block is portion of a vacated pulp and paper mill containing the aforementioned buildings and ancillary structures that were vacated when Blue Heron ceased operations in 2011.

c) Environmental concerns, if known, at the site.

The previous investigations identified a range of potential contaminants that could be present in buildings and Site solids (soil, catch basin or drain sediment, stormwater solids/sediment, and water treatment plant filter media) and water (groundwater, seeps, and stormwater). On the basis of historical Site operations, visual reconnaissance, and analytical testing, the following Contaminants of Concern (COCs) are confirmed or potentially present in the cleanup area:

- Asbestos
- Lead-based paint
- Metals, including hexavalent chromium,
- Petroleum hydrocarbons,
- Polychlorinated biphenyls (PCBs),
- Volatile Organic Compounds (VOCs),
- Semi volatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbons (PAHs), and
- Dioxins/Furans.

d) How the site became contaminated, and to the extent possible, describe the nature and extent of the contamination.

Contamination at the Site is believed to be related to the varied and long-term industrial operations at and surrounding the site, which span over a century. As described above, on the basis of historical Site operations, visual reconnaissance, and analytical testing, Contaminants of Concern (COCs) were confirmed or are potentially present in the cleanup area.

6. Brownfields Site Definition

This site is eligible for Brownfields Grant funding, and meets the definition of a brownfield under CERCLA § 101(39) as described in the Information on Sites Eligible for Brownfields Funding under CERCLA § 104(k).

A brownfield, as defined by the USEPA, is a former industrial or commercial site where expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. At the Former Blue Heron Paper Mill property (Site), numerous prior investigations have revealed actual environmental contamination, and the PPA entered into between the Tribe and DEQ has identified additional potential sources of contamination The Site is planned for redevelopment with residential, commercial and open space uses, and actual or perceived contamination must be assessed and mitigated as part of the redevelopment process in order to protect human health and ecological health, and to leverage the necessary level of investment in the redevelopment.

The Site:
a) is not listed or proposed for listing on the National Priorities List;
b) is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA; and
c) is not subject to the jurisdiction, custody, or control of the U.S. government.

7. Environmental Assessment Required for Cleanup Grant Applications

Two Phase II Environmental Site Assessments have been conducted at the Former Blue Heron Paper Mill, including the Water Street Block:

> 2012. ERM. Phase II Environmental Site Assessment Results and Recommendations, Blue Heron Mill, Oregon City, Oregon. November 6, 2012.
>
> 2019. Apex Companies, LLC (Apex), Phase II Environmental Site Investigation, Former Blue Heron Mill, Oregon City, Oregon. January 4, 2019.

Additionally, the following reports have also been conducted at the Former Blue Heron Paper Mill:

AEI Consultants (AEI). Phase I Environmental Site Assessment, 419 and 427 Main Street, Oregon City, Oregon 97045. April 16, 2008.

Ecology and Environment, Inc. (EEI). Technical Direction Document Number: 06-10-0007. December 11, 2008.

United States Environmental Protection Agency (USEPA), 2009. Blue Heron Paper Company, CERCLIS #ORN001002618 (No Further Action under Federal Superfund Program). October 23, 2009.

Bridgewater Group, Inc. (BGI). Results of Preliminary Soil Investigation, Blue Heron Paper Company, Oregon City, Oregon. May 24, 2011.

ERM-West, Inc. (ERM). Phase I Environmental Site Assessment, Former Blue Heron Paper – Office Building, 419 Main Street, Oregon City, Oregon. August 2012.

Environmental Specialties (ES). Willamette Falls, Review of 2012 ERM Level II Site Assessment, September 17, 2018.

Maul Foster Alongi (MFA). Draft Phase I Environmental Site Assessment, Former Blue Heron Paper Factory, 419 and 427 Main Street, Oregon City, Oregon. June 29, 2017.

Wood Environment & Infrastructure Solutions, Inc. (Wood). 2019a. Phase I Environmental Site Assessment, Former Blue Heron Paper Company Mill Site, 419 Main Street, Oregon City, Oregon 97045. August 22. Prepared for Confederated Tribes of the Grande Ronde Community of Oregon.

Wood, 2019b. Initial Summary Report, Former Blue Heron Paper Company Mill, 419 - 427 Main Street, Oregon City, Oregon 97045. October 15.

8. Enforcement or Other Actions

None.

9. Sites Requiring a Property-Specific Determination

The site does not require a Property-Specific Determination.

10. Threshold Criteria Related to CERCLA/Petroleum Liability

The site is co-mingled with hazardous substances and petroleum contaminants.

a. Property Ownership Eligibility – Hazardous Substance Sites

Applicant is a federally recognized Indian tribe and thus is exempt from CERCLA liability. EPA has not considered Indian tribes to be liable under CERCLA and, therefore, tribes are exempt from demonstrating that they meet the requirements of a CERCLA liability defense to be eligible for a Brownfields Grant.

b. Property Ownership Eligibility – Petroleum Sites

On October 18, 2019, Oregon Department of Environmental Quality issued its petroleum determination and found the property met the four eligibility criteria and is eligible to receive funding. The State petroleum site eligibility determination letter is below.

Oregon
Kate Brown, Governor

Department of Environmental Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5263
FAX (503) 229-6945
TTY 711

October 18, 2019 *via electronic delivery*

Terri Griffith
EPA Region 10
1200 Sixth Ave., Suite 155
ECL-133
Seattle, WA 98101

Re: Petroleum Determination – Former Blue Heron Property
Clackamas County
Tax Lots: 300, 300A1, 390, 500 and 600 on Tax Map 2-2E-31BD
419/427 Main Street, Oregon City, Oregon

Dear Terri:

The Oregon Department of Environmental Quality (ODEQ) has reviewed information for the property located at 419/427 Main Street, Oregon City, Oregon. The property is associated with tax lots 300, 300A1, 390, 500, and 600 in Clackamas County.

The review was performed to determine if the property would be eligible to receive funding from the Confederated Tribes of the Grand Ronde Community of Oregon (CTGR) EPA Brownfield Cleanup Grant (if awarded). Based on the review of available information, ODEQ has determined that the property meets the four eligibility criteria and is eligible to receive funding.

In order to determine the property's eligibility, ODEQ used the criteria in Appendix 1 Section 1.3.2 of the EPA's "*FY18 Guidelines for Brownfields Cleanup Grants*" as a guide.

Appendix 1 Section 1.3.2 *Contamination by Petroleum or Petroleum Product* states:

"For a petroleum contaminated site(s) that otherwise meets the definition of a brownfield site to be eligible for funding, EPA or the state must determine:

1. the site is of "relatively low risk" compared with other "petroleum-only" sites in the state; and
2. there is no viable responsible party; and
3. the site will not be assessed, investigated or cleaned up by a person that is potentially liable for cleaning up the site.
4. petroleum-contaminated sites must not be subject to a corrective action order under the Resource Conservation and Recovery Act (RCRA) §9003(h)."

"Relatively Low Risk"

Appendix 1 Section 1.3.2 states that "Our (EPA) preliminary view is that the following types of petroleum-contaminated sites are high risk sites, or are <u>not</u> of "relatively low risk."

1. "High risk" sites currently being cleaned up using LUST trust fund monies.

Based on the information currently available, both the current and past owners of the property are not viable responsible parties. This determination is solely for the purposes of determining eligibility for the CTGR's EPA Brownfield Cleanup Grant funding (if awarded).

"Cleaned Up by a Person Not Potentially Liable"
Appendix 1 Section 1.3.2 states "Brownfields funding may be awarded for the assessment and cleanup of petroleum-contaminated sites provided they meet the requests below:

1) the applicant has not dispensed or disposed of or owned the property during the dispensing or disposal of petroleum or petroleum-product at the site, and
2) the applicant did not exacerbate the contamination at the site and took reasonable steps with regard to the contamination at the site."

Response:
The CTGR has not dispensed or disposed of or owned the properties during the dispensing or disposal of petroleum products. The CTGR has not exacerbated the contamination on the property and has taken reasonable steps by planning to conduct a site investigation and cleanup to determine the extent of contamination associated with the release.

"Is Not Subject to Any Order Issued under §9003(h) of the Solid Waste Disposal Act"
The CTGR is not subject to a corrective action order under RCRA §9003(h).

Based on the above information, ODEQ has determined that the Former Blue Heron Property is eligible for funding from the CTGR Brownfield Cleanup grant (if awarded).

If you have any questions or need clarification of any of the issues addressed in this letter, please do not hesitate to call me at (503) 229-5585.

Sincerely,

Rebecca Wells-Albers

Rebecca Wells-Albers
Brownfields Coordinator
DEQ Northwest Region Office

Cc (e-mail): Jennifer Biesack, CTGR
Stacia Martin, CTGR
Jesse White, CTGR

11. Cleanup Authority and Oversight Structure

a. In conjunction with the Tribe's purchase of the former Blue Heron Paper Mill property, it negotiated and voluntarily entered into a Prospective Purchaser Agreement (PPA) with the Oregon Department of Environmental Quality (DEQ) pursuant to Oregon State Statute 465.327. Pursuant to the PPA, the Tribe will perform a Scope of Work (SOW) for cleanup of the site pursuant to a set schedule with DEQ oversight. The PPA designates Jesse White, the Tribe's Engineering and Public Works Manager, as the Project Manager for the SOW cleanup activities and Mark Pugh of DEQ as the Project Manager in charge of SOW oversight. The cleanup of the Water Street Block will be managed by the Tribe's Project Manager with oversight by the DEQ Project Manager. The PPA and SOW ensure that all cleanup activities on the Former Blue Heron Paper Mill Site, including the Water Street Block, are in conformance with all laws and requirements as set forth in the PPA.

b. Cleanup response activities at the Water Street Block will not impact adjacent or neighboring properties. Access through neighboring properties is not necessary to conduct the cleanup, perform confirmation sampling, or monitor offsite migration of contamination. The site is bordered on all sides by Tribal properties and the Tribe maintains and controls access to the site via Main Street.

12. Community Notification

a. Draft Analysis of Brownfield Cleanup Alternatives

See attached.

b. Community Notification Ad

On November 18, 2019, the Tribe announced it would be hosting a public meeting to present its EPA Environmental Assessment and Cleanup applications and to host an open house and question and answer session. This announcement was posted at the Tribes' headquarters and at the Blue Heron Former Paper Mill site. The announcement was also announced at a City Commission meeting. Additionally, the event announcement was posted electronically to the Tribe's website (https://www.grandronde.org/events/environmental-assessment-cleanup-and-blue-heron-grant-application-update/) and Oregon City's website: https://www.orcity.org/planning/wflpblue-heron-environmental-assessment-cleanup-grant-application-update-open-house. Oregon City's Community Communications Coordinator also sent out a mass email announcement. There were also social media posts on Oregon City – City Hall, Willamette Falls Trust, and Willamette Falls Legacy Project pages.

c. Public Meeting

The public meeting took place on Tuesday, November 26, 2019, at the Museum of the Oregon Territory in the Tumwater room. The meeting was led by Tribal staff who also had available a representative from Wood Environmental, a consultant for the Tribe.

More than 75 people participated in the public meeting and 62 individuals signed in. Members of the Clackamas County Board of Commissioners, City staff, Metro staff, and the former Mayor of Oregon City were also present. Sign in sheets, comment cards and copies of the ABCA were available upon entry as well as contact information for tribal staff. The open house took place at 5:30 p.m. and the presentation began at 6:00 p.m.

Jesse White, Jennifer Biesack and Stacia Hernandez represented the Tribe at the meeting and briefly discussed the Tribe's acquisition of the property, the Tribe's connection to Willamette Falls and presented both of the Tribe's grant applications to the audience before opening the floor for questions.

During the meeting staff responded to 15 questions. At the conclusion of the meeting staff met with community members and answered questions about the Tribe until approximately 6:50 p.m.

Other than those received at the public meeting, the Tribe has not been contacted for copies of the applications or the ABCA and has not received written comments on the Tribe's grant applications. The Tribe has however, received several thank yous for its involvement in the community and on the property. The feedback received at the public meeting was overwhelmingly positive, and all project partners are in full support of the grant applications.

d. Submission of Community Notification Documents

The applicant must attach the items listed below to the application submitted to EPA:

- A copy of the draft ABCA(s).
  See Attached.

- A copy of the ad (or equivalent) that demonstrates notification to the public and solicitation for comments on the application. [See below]

Environmental Assessment, Cleanup & Blue Heron Grant Application Update

Tuesday, November 26, 2019

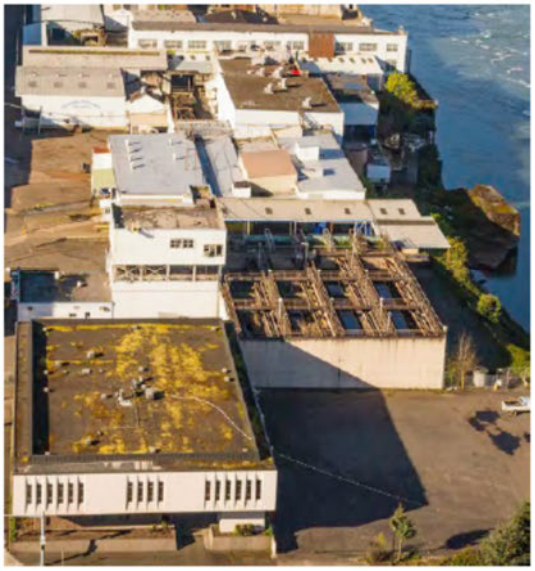
Open House 5:30 p.m.—6:00 p.m.; Presentation 6:00 p.m.

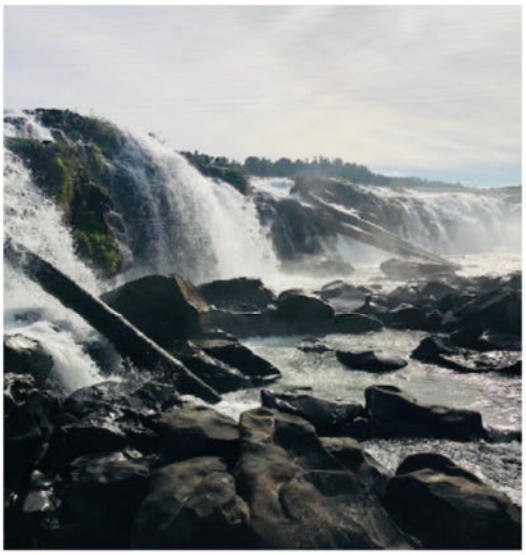
Museum of the Oregon Territory—Tumwater Ballroom

211 Tumwater Dr, Oregon City, OR 97045

Please join us for a presentation and Q&A session about the upcoming environmental cleanup of Blue Heron and our EPA Brownfields Grant applications.

Representatives of the Tribe will be on hand to provide an update on the project, cleanup status and to answer questions.



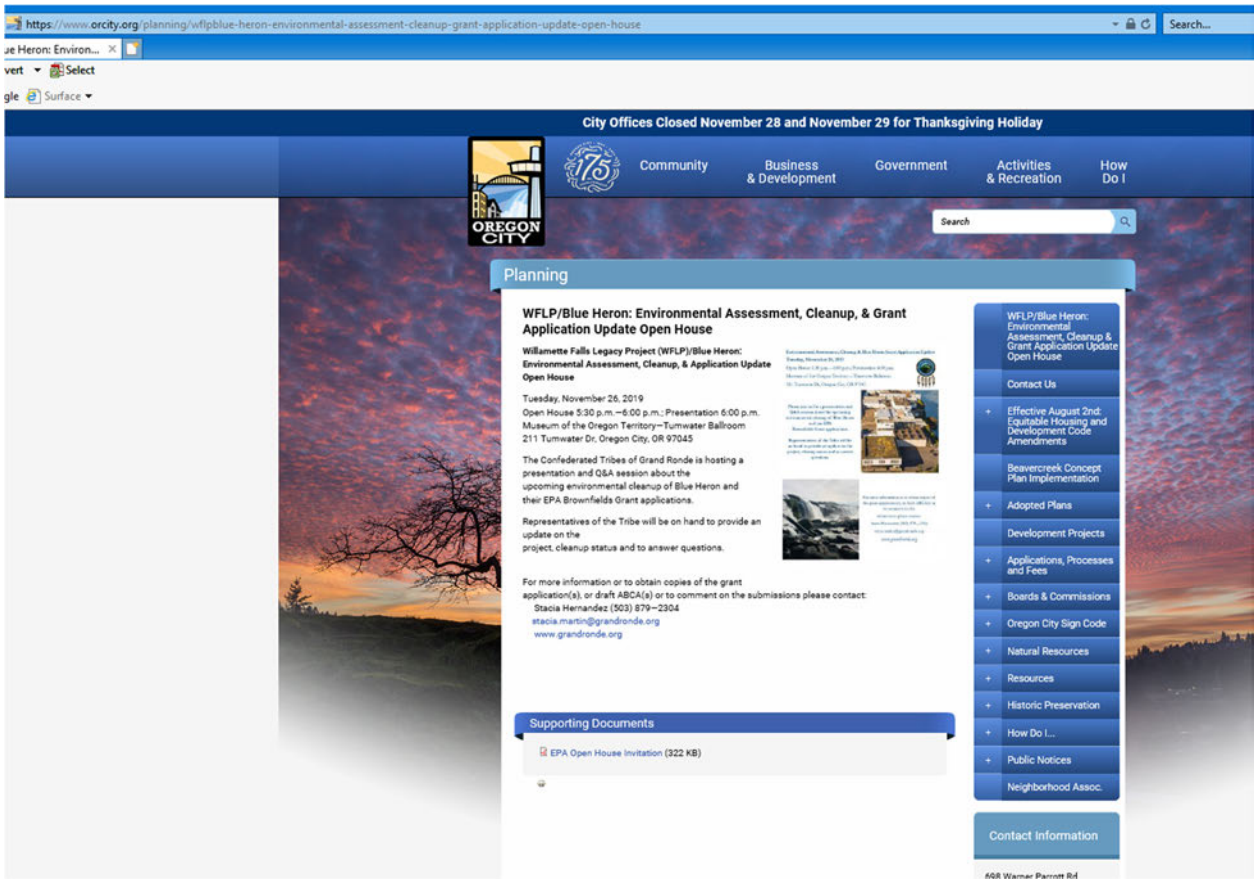


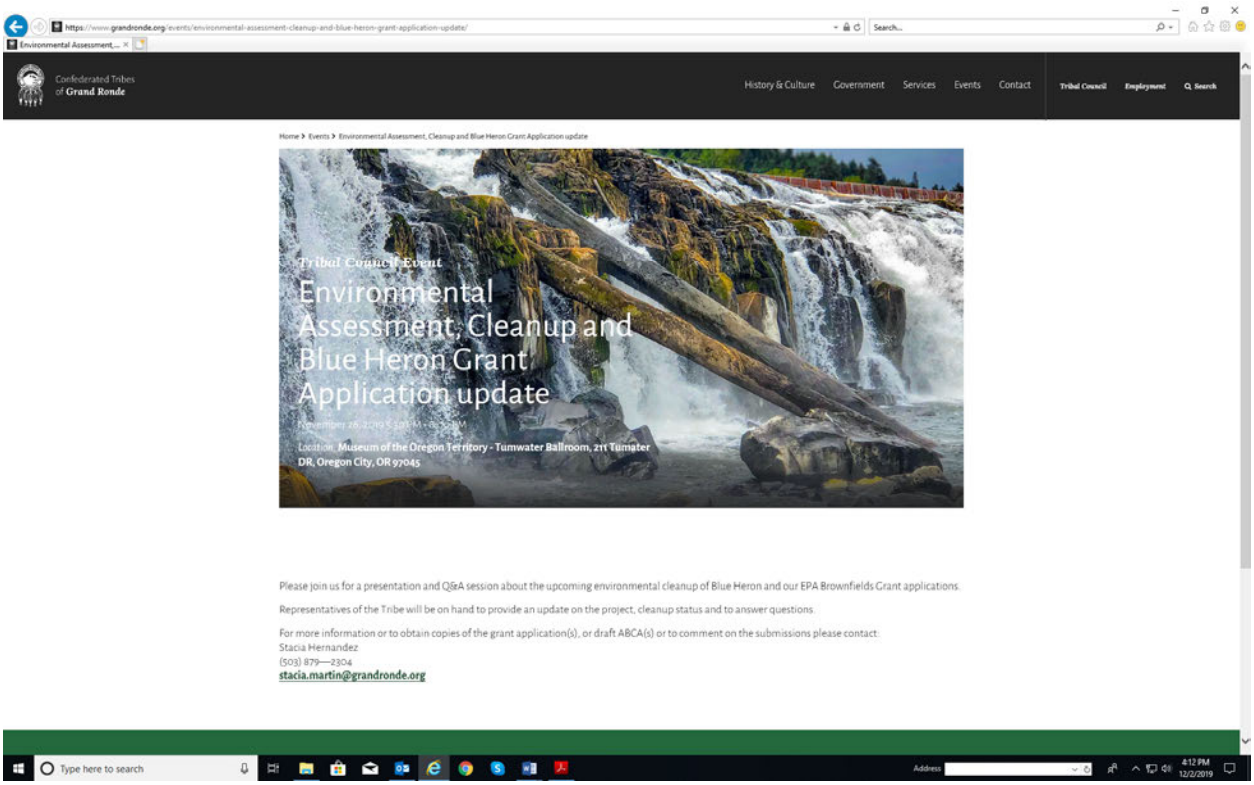
For more information or to obtain copies of the grant application(s), or draft ABCA(s) or to comment on the submissions please contact:

Stacia Hernandez (503) 879—2304

stacia.martin@grandronde.org

www.grandronde.org


City Offices Closed November 28 and November 29 for Thanksgiving Holiday
OREGON CITY
Community
Business & Development
Government
Activities & Recreation
How Do I
Search
Planning
WFLP/Blue Heron: Environmental Assessment, Cleanup, & Grant Application Update Open House
Willamette Falls Legacy Project (WFLP)/Blue Heron: Environmental Assessment, Cleanup, & Application Update Open House
Tuesday, November 26, 2019
Open House 5:30 p.m.—6:00 p.m.; Presentation 6:00 p.m.
Museum of the Oregon Territory—Tumwater Ballroom
211 Tumwater Dr, Oregon City, OR 97045
The Confederated Tribes of Grand Ronde is hosting a presentation and Q&A session about the upcoming environmental cleanup of Blue Heron and their EPA Brownfields Grant applications.
Representatives of the Tribe will be on hand to provide an update on the project, cleanup status and to answer questions.
For more information or to obtain copies of the grant application(s), or draft ABCA(s) or to comment on the submissions please contact:
Stacia Hernandez (503) 879—2304
stacia.martin@grandronde.org
www.grandronde.org
Supporting Documents
EPA Open House Invitation (322 KB)
WFLP/Blue Heron: Environmental Assessment, Cleanup & Grant Application Update Open House
Contact Us
Effective August 2nd: Equitable Housing and Development Code Amendments
Beavercreek Concept Plan Implementation
Adopted Plans
Development Projects
Applications, Processes and Fees
Boards & Commissions
Oregon City Sign Code
Natural Resources
Resources
Historic Preservation
How Do I...
Public Notices
Neighborhood Assoc.
Contact Information


Confederated Tribes of Grand Ronde
History & Culture
Government
Services
Events
Contact
Tribal Council
Employment
Search
Tribal Council Event
Environmental Assessment, Cleanup and Blue Heron Grant Application update
Location: Museum of the Oregon Territory - Tumwater Ballroom, 211 Tumwater DR, Oregon City, OR 97045
Please join us for a presentation and Q&A session about the upcoming environmental cleanup of Blue Heron and our EPA Brownfields Grant applications.
Representatives of the Tribe will be on hand to provide an update on the project, cleanup status and to answer questions.
For more information or to obtain copies of the grant application(s), or draft ABCA(s) or to comment on the submissions please contact:
Stacia Hernandez
(503) 879—2304
stacia.martin@grandronde.org

- Comments received and Applicant's responses.

Meeting Comments & Responses
November 26, 2019
EPA Assessment & Cleanup Grant Application Public Meeting
Recording #217.MP3 Available

All comments and responses were oral. No written comments were received

Q1: Will a copy of this presentation be available?

R1: I have some business cards in the back that might be gone now, but if you want to fill out your email on the sign in sheet we would be more than happy to mail out the presentation.

Q2: What are your timelines? When would you get the grant and when would you get started?

R2: That's a great question. The grant cycle approval or awards would be made in September 2020. So it would be shortly thereafter that we would start working to bring on contractors / consultants. So hopefully by Spring 2021.

Just to add to that this is simply summarizing the work we hope to do in these areas but our Council has already allocated some funds for next year so there will be some other work happening on site. This just highlights the work we would like to accomplish with the grant funding.

Q3: I'm very pleased that you got the property. I think it's great. There's some discussion about breaking ground next year for the legacy Riverwalk does that impact what you're proposing to do here?

R3: I don't think so. The Tribe is working with the Riverwalk partnership and is collaborating. Hopefully as the property owner we are helping out more than we are hindering. So no. We're looking forward to developing alongside the Riverwalk project.

Q4: I've been told that buildings that are torn down that there are limitations to how close to a Salmon bearing waterway they can be built. So that's part one of my question. Part two is after you tear down those buildings what do you envision going in there?

R4: Well, I'll answer the second part of your question because I think I can. Initially it would be a gravel parking lot. It would be property that would be used for access and access out to the viewing area. We are working on plans for a master plan. Hoping to get a better idea here shortly. We have hired a consultant to work with us on that and we hope to start that soon. The first part I don't have answer for.

Q4a: I would hope that you would have a plan for what to do in that area because my suspicion would be that you might not be able to build anymore buildings.

R4a: That would be something we would need to look into definitely.

Audience Response: There is a 200 ft. setback but that is only on undeveloped land not on land that had already been developed.

R4b: Thank you. I would also just add that whatever the Tribe would do would have to be approved through the permitting processes and through the City of Oregon City and following the framework master plan.

Just to tag on. I think one of the things our council and our staff really pride ourselves on is restoration and protecting the species in and around the area. We're really familiar with the area, we've done lamprey harvest for decades and even before then, since time immemorial. So for us that's one of the conversations we're having as we're putting together these plans and working with the partners. It's not only about what we are doing to protect the water but also the species in and around it. We will definitely have more information as we move forward and I think that's a really good question and point.

Q5: What was the estimate for demolition and cleanup?

R5: We did get an estimate for removal of all the buildings and remediation and that was $550,000. Then on top of that there is some additional soil contamination in and around the building that would need to be assessed as part of this grant.

Q6: Is there a masterplan for development of the whole site? Or are you going to be assessing everything as you go along because there are so many unknowns?

R6: We're still trying to assess everything and put that together. It's ongoing work with our consultant. Our council and staff have also just wrapped up a Highest and Best Use study on the property so that is something we will be looking at and evaluating to see what we would analyze further.

Q7: Is there any interplay between what would be taking place in block one and other activity?

R7: Yes, there is definitely some continuity there. Ultimately, portions of it could lie within the Army Corps permit and there is still some planning to be done there.

Q8: Do you have a delivery date for the master plan?

R8: Not at this time. The sooner the better on our end. We obviously made a significant investment and one that's really worthwhile we feel. For us, we've always had a connection to the place and we want to maintain that connection and do a lot of good in and around the community so for us the sooner the better but there's also a cultural component too so we're analyzing all of these things as we move forward and coordinating with the partners that have been involved.

Q9: Is there any consideration of making this sovereign land?

R9: That hasn't been discussed or even analyzed at this point. Right now our priority for moving lands into trust would be to do so in and around our reservation. Right now that isn't something that has been analyzed but that would involve a lot of conversations with the community and the partners as well. We're taxpayers; we pay our taxes and I've budgeted for them and we'll be sure to pay them on time.

Q10: Do you know yet which existing buildings you will be able to retain?

R10: We don't know yet. There's obviously a significant number that need to be taken down. There may be some that you could keep but that will need to be assessed as we go through. There are some historic structures onsite as well so those would remain.

Q11: You mentioned a PPA and that stands for a property purchase agreement? Did I get that right?

R11: Prospective purchaser agreement.

Q11a: And that's conditional? What are the terms referenced? What does it consist of?

R11a: There's a scope of work in the PPA and it has 4 main objectives, site stabilization, high priority remedial actions, areas to be remediated through source removal or capping and then the fourth is to prepare an overarching work plan. Going further, over the next 3 years the areas identified would need to be remediated and additional assessment would need to be completed.

Q11b: And your ability to do this is dependent on you getting the grant?

R11b: No but obviously the grants would be a huge help and would help us do more work. We have started that process. We hired Wood Environmental and they have started some of the work identified in the PPA. Some of the work we are taking on is also in the administrative building parking lot where there potentially are USTs. That will be analyzed and then we would look to remove them.

Q11c: So the PPA is between the Tribe and Oregon DEQ? Those are the only parties to the agreement?

R11c: Yes.

Q12: Question regarding work in areas where the Riverwalk may be located.

R12: The expectation would be that the developer would construct those areas of the Riverwalk. It would be working with the partners and working with the design team to ultimately construct that.

Q13: How much staffing do you anticipate bringing up to Oregon City?

R13: Right now, it is the 3 of us primarily and then we have a 9 person tribal council and have tribal security onsite. So we won't have permanent staffing right now in the administrative building but we will be using it as a satellite office as we meet with partners.

Q14: Is there a website to watch as things progress.

R14: We have plans to create a landing page on our website for updates. Right now, we don't have much online but will look to make it accessible as we move forward.

Q15: Will you be able to use the railroad to bring materials in and out?

R15: That's a really good question. That would be working with Union Pacific on some rails. It might not be a bad idea. Limited access is something we will be looking at.

###

- Meeting notes or summary from the public meeting(s):

  (See sub-section c above); and

- Meeting sign-in sheets (see following pages (5))

13. <u>Statutory Cost Share</u>

a. Demonstrate how you will meet the required cost share, including the sources of the funding or services, as required for this Cleanup Grant.

The Tribe is committing $100,000 as its 20% cost share for this project as a cash match. Fulfillment of this funding obligation will be placed in the Tribe's calendar year 2021 budget (calendar year) based on the award sum received with an anticipated project start project in the fall of 2020. The Tribal matching funds will come from the general fund.

SIGN IN SHEET

Environmental Assessment, Cleanup & Blue Heron Grant Application Update. November 26, 2019. 5:30PM to Conclusion.

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The Confederated Tribes of Grand Ronde Community of Oregon

SIGN IN SHEET

Environmental Assessment, Cleanup & Blue Heron Grant Application Update. November 26, 2019. 5:30PM to Conclusion.

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The Confederated Tribes of Grand Ronde Community of Oregon

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Page 2 of 3

NO.	NAME	PHONE (HOME)	PHONE (CELL)	EMAIL	AREA OF EXPERTISE/INTEREST
(b) (6)					

Draft
Analysis of Brownfields Cleanup Alternatives

Former Blue Heron Paper Mill
419 Main Street, Oregon City, Oregon
Project # 9-61M-135580

Prepared for:

Confederated Tribes of the Grand Ronde (CTGR) Community of Oregon

219 NW 2nd Avenue, Portland, OR 97209

November 19, 2019

Wood Environment & Infrastructure Solutions, Inc.
7376 SW Durham Road
Portland, Oregon
USA 97224
T: 503-639-3400
www.woodplc.com

November 19, 2019
Project # 9-61M-135580

Mr. Jesse White, PE
Confederated Tribes of the Grand Ronde (CTGR) Community of Oregon
219 NW 2nd Avenue
Portland, OR 97209

Subject: Draft Analysis of Brownfields Cleanup Alternatives
Former Blue Heron Paper Mill
419 Main Street, Oregon City, Oregon

Dear Jesse:

Wood Environment & Infrastructure Solutions, Inc. (Wood) is pleased to submit this Analysis of Brownfields Cleanup Alternatives for the Former Blue Heron Paper Mill property located at 419 Main Street in Oregon City, Oregon.

We appreciate the opportunity to serve you on this project. If you have any questions or require further information, please feel free to contact us at (503) 639-3400.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

[Draft]

John L. Kuiper, R.G.
Principal Geologist

JLK/JS:al/ay
Enclosure: Draft Analysis of Brownfields Cleanup Alternatives

Draft Analysis of Brownfields Cleanup Alternatives

Former Blue Heron Paper Mill
419 Main Street, Oregon City, Oregon
Project # 9-61M-135580

Prepared for:

Confederated Tribes of the Grand Ronde (CTGR) Community of Oregon
219 NW 2nd Avenue, Portland, OR 97209

Prepared by:

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November 19, 2019

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Third-party disclaimer

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1.0 Introduction & Background

On behalf of the Confederated Tribes of the Grand Ronde (CTGR) Community of Oregon, Wood Environment, & Infrastructure Solutions, Inc. (Wood) has prepared this Analysis of Brownfields Cleanup Alternatives (ABCA) for a portion of the Former Blue Heron Paper Mill, located at 419 Main Street, Oregon City, Oregon. CTGR purchased the Site in 2019 from Willamette Falls Legacy, LLC, which acquired the Site out of bankruptcy in 2011. A prospective purchaser agreement (PPA) between the CTGR and the Oregon Department of Environmental Quality (DEQ), stipulates cleanup requirements for the Site (DEQ, 2019b).

The objective of this ABCA is to present cleanup remedy alternatives and to guide selection of a remedy based on a systematic evaluation of the alternatives. Each alternative is evaluated using the following factors: 1) effectiveness, 2) implementability, 3) reasonableness of cost, and 4) other factors. This ABCA was completed in general accordance with US Environmental Protection Agency (USEPA) guidelines for conducting removal actions (Code of Federal Regulations [CFR] 40, Part 300, Subpart E] and DEQ authority (Oregon Administrative Rules [OAR] 340-122). This document is a draft, and is presented for public comment.

1.1 Site Location

The current address of the Site is 419 Main Street, Oregon City, Oregon 97045, of which the northernmost portion is herein referred to as the "Site". The Site is situated at latitude 45.355355 North and longitude -122.611734 West. The Site is shown relative to surrounding features and topography on **Figure 1** and a Site Layout showing buildings, roadways, and notable Site features, is shown on **Figure 2**. Site photographs of the area proposed for cleanup are presented in **Appendix A**. The Site is located near the southeast bank of the Willamette River, by Willamette Falls. The Oregon City zoning map shows the Site with a zoning designation of Willamette Falls Downtown (WFD) District that applies to the historic Willamette Falls area bordered by US Highway 99E/McLoughlin Boulevard and the Oregon City downtown district to the north and east, and the Willamette River to the west and south. The Site is identified on Clackamas County tax assessment records with the following Assessor's Parcel Number:

Tax Lot	Address	Acres
22E31BD300	419 Main Street	22.0

The Site comprises roughly one city block (northern portion of the tax lot) and is described as a portion of the Plat "Oregon City" and other lands located in the northwest ¼ and southwest ¼ of Section 31, Township 2 South, Range 2 East, Willamette Meridian, Oregon City, Clackamas County, Oregon. The portion of the Site for which cleanup is currently proposed, and which is covered by this ABCA, consists of the following buildings, infrastructure, and accompanying areas (e.g. parking lots, roadways, underground utility corridors):

- Building #2 - Water Filter Plant
- Building #3 - Control Tower
- Building #4 – Fire Station
- Building #5 – Office
- Building #6 - Guard Shack
- Parking lots along vacated Main and Fourth Streets
- Stormwater utility lines and utility corridor backfill beneath vacated Fourth and Main Streets.

Regionally, the Site is in a valley carved by the Willamette River into multiple flows of the Columbia River Basalt. The basalt flows are characterized as dense, hard to very hard, sometimes vesicular, fine-grained, and black to dark gray in color with oxidized fractures. The Site itself sits on the Sentinel Bluffs unit of the Grand Ronde Formation (Madin, 2009). The Sentinel Bluffs unit is approximately 400-feet thick with interflow zones defining multiple flows that comprise this unit. Soil is sparse at the Site and largely consists of pockets of fill present at varying depths from a few feet up to 30-feet below ground surface (bgs).

1.2 Previous Site Use, Setting, and History

The Site is fully developed for industrial use with limited vegetation. It is a portion of a vacated pulp and paper mill containing the aforementioned buildings and ancillary structures that were vacated when Blue Heron ceased operations in 2011. The CTGR employs 24-hour security and a security office is maintained off Main Street near the entrance to the Site. Adjoining and nearby properties are occupied by the following uses:

Direction	Property Description
North	Willamette River, Highway 99E and Oregon City downtown commercial district
Northeast	Highway 99E, residential and commercial businesses
East	Railroad line, and S McLoughlin Boulevard on a bluff overlooking Site
Southeast	Railroad line, S McLoughlin Boulevard, and commercial district
South	Willamette River, Willamette Falls, PGE Canemah Substation
Southwest	Willamette River, Willamette Falls, PGE hydroelectric dam
West	Willamette River, PGE hydroelectric dam, West Linn Paper Company (on opposite bank of river)
Northwest	Willamette River, Willamette Locks, Highway 43 bridge into downtown Oregon City

The Site is located adjacent to the Willamette River, near the Willamette Falls. These falls are a unique hydrologic, historic, and culturally significant natural feature, which made the Site a hub for Native American life and later for industrial development as well as loading and unloading via the river. Willamette Valley tribes and bands of the CTGR historically inhabited the lands surrounding Willamette Falls and managed access to Willamette Falls (Beckham, 2018). Willamette Falls and its vicinity was the aboriginal homeland of the Clackamas, Clowwewalla, and Multnomah and was a fishery used by their neighbors, the Kalapuya and Molala. Willamette Falls is located in the ratified treaty area of the Confederated Tribes of the Grand Ronde Reservation. The Clowwewalla (an antecedent tribe of the Confederated Tribes of the Grand Ronde Community of Oregon) signed the Willamette Valley Treaty of 1855, which ceded title to Willamette Falls and the local area to the United States in exchange for certain rights and benefits. Willamette Falls and the local area is a core ancestral homeland of the CTGR. In April 2016, the CTGR formally gained the permission of the state of Oregon to construct and use a fishing platform at Willamette Falls (https://www.smokesignals.org/articles/2018/12/13/beckham-report-bolsters-tribes-historical-claims-to-managing-willamette-falls-fishery/, read on October 14, 2019). The 2019 purchase of the Blue Heron Site returns CTGR control to land abutting Willamette Falls.

The Site and immediately adjacent areas have an extensive history of development since at least 1884. Portland General Electric (PGE) has operated a hydroelectric dam at Willamette Falls for over 100 years.

The Site most recently was occupied by the Blue Heron paper mill; however, since at least 1884, the area has been developed with various paper mills, a woolen mill, a tannery, a flour mill, wood mill, small manufacturing facilities, an automotive repair shop, warehouses, boarding houses/hotels, and small retail operations. The Site is bordered by Main Street and 4th Street. These streets were vacated and absorbed into Site operations by the mid-1900s. Portions of the Site have been filled to extend the buildable land. The Site includes below-grade spaces, basements, equipment areas, drainage ways and below grade pipe corridors that span much of the Site.

The City of Oregon City provides water to the Blue Heron Site through a water main that runs beneath vacated Main Street (Kevin Hank, Oregon City, 2019). Groundwater is not being used at the Site. There is no surface water on the Site other than temporary ponding associated with heavy rain events. Storm water across the Site is managed in two ways:

- Vegetated aboveground totes to capture and treat water runoff from multiple roofs at the Site. Water treated from these vegetated totes is then apparently directed via overland flow to catch basins and ultimately to one of three tailraces that discharge directly to the Willamette River. Note: These totes are not currently functional.
- Surface flow that is not captured by the vegetated totes would run across the ground surface and flow towards the catch basins and then ultimately out to the Willamette River.

1.3 Site Assessment Findings

Numerous environmental investigations have been conducted at the Site, beginning in at least 2000. The results of these investigations are summarized in Wood's Initial Summary Report (Wood, 2019b) and below. The known assessments/reports compiled to date include:

- Mill Wide Asbestos Survey, Smurfit Newsprint Oregon City Mill (Valley Environmental Services, 2000).
- Final Site Inspection Report (EEI, 2008)
- Soil Investigation (Bridgewater, 2011)
- Phase II Environmental Site Assessment (ERM, 2012)
- Draft Phase I Environmental Site Assessment (MFA, 2017)
- Focused Subsurface Investigation Report (MFA, 2018)
- Phase II Environmental Site Investigation (APEX, 2018)
- NPDES Permit 102229, Stormwater Monitoring – 2018, File Number: 72634 (Environmental Specialties, 2018)
- Transformer Oil Sample Results (Environmental Specialties, 2019)
- Phase I Environmental Site Assessment report (Wood, 2019a)
- Initial Summary Report (Wood, 2019b).

The previous investigations identified a range of potential contaminants that could be present in buildings and Site solids (soil, catch basin or drain sediment, stormwater solids/sediment, and water treatment plant filter media) and water (groundwater, seeps, and stormwater). On the basis of historical Site operations, visual reconnaissance, and analytical testing, the following Contaminants of Concern (COCs) are confirmed or potentially present in the cleanup area:

- Asbestos
- Lead-based paint
- Metals, including hexavalent chromium,
- Petroleum hydrocarbons,
- Polychlorinated biphenyls (PCBs),
- Volatile Organic Compounds (VOCs),
- Semi volatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbons (PAHs), and
- Dioxins/Furans.

Site data are not yet sufficiently detailed to construct a detailed Conceptual Site Model (CSM) that would establish source-to-exposure pathways; however, the available data support the following interpretations, as shown on **Figure 3**:

- Filter media - The water treatment plant filter media is specifically mentioned in the DEQ PPA Scope of Work (SOW) as requiring evaluation to assess the need for remediation. This media has and contains COCs that are problematic to the Portland Harbor Superfund Site. The water treatment plant filter media was sampled (Samples CS-Filter East and CS-Filter West) and analyzed for dioxins, metals and PCBs. PCBs and dioxins are present at levels requiring cleanup. For PCBs, Aroclor 1254 was detected at a concentration of 0.162 mg/kg, exceeding the DEQ Clean Fill and DEQ Upland Clean Fill criteria (each 0.041 mg/kg) (DEQ 2019a), indicating that during Site redevelopment the soil must be placed into a lined landfill. A total PCB concentration exceeded the Portland Harbor Record of Decision (ROD) Cleanup Level (0.012 mg/kg), indicating that media handling during construction work will need to be designed to prevent media releases to surface water. For dioxins, the filter media dioxin total equivalency quotient (TEQ) results exceed the Vapor Intrusion into Buildings and Volatilization to Outdoor Air RBCs for Urban Residential and Occupational scenarios (Risk-Based Concentration [RBCs] of 0.024 and 0.13 mg/kg, respectively).
- Soil. Soil in the southern portion of the Site is contaminated with petroleum hydrocarbons and metals. This area is located adjacent to a sewer line and is also upgradient and proximal to the Fire Station and Water Filter Plant. The nearby sewer manhole has petroleum vapors, therefore indicating that utility line backfill along vacated Fourth Street may be serving as a preferential pathway for contaminant migration (via perched groundwater and vapors). It is suspected that petroleum extends beneath the Fire Station and Water Filter Plant. Specifically:
    - Location F07-01 at the southern portion of water filter plant redevelopment area on Figure 3. Soil at 0.5 to 1 feet bgs at this location is contamination by diesel- and heavy oil-range organics (2,200 and 7,400 mg/kg, respectively), many PAHs, PCBs, and chromium and copper. The estimated carcinogenic PAH TEQ (28.32 mg/kg) exceeds many RBCs and the Portland Harbor ROD Cleanup Level (0.012 mg/kg). A PCB Aroclor 1221 concentration of 0.11 mg/kg exceeded the DEQ Clean Fill and DEQ Upland Clean Fill criteria (each 0.041 mg/kg) indicating that the soil must be placed into a lined landfill. A total PCB concentration exceeded the Portland Harbor ROD Cleanup Level (0.012 mg/kg). Thus, soil handling during construction work in this area will need to be designed to prevent soil releases to surface water.
    - Boring B-18 at south portion of water filter plant redevelopment area. Soil at 0 to 5 feet bgs contained low level contamination by diesel- and heavy oil-range organics (2.13 and 6.64 mg/kg, respectively) and several PAHs, with an estimated carcinogenic PAH TEQ (0.02 mg/kg) exceeding

the Portland Harbor ROD Cleanup Level (0.012 mg/kg). Thus, soil handling during construction work in this area will need to be designed to prevent soil releases to surface water.

- Storm/sanitary sewer petroleum vapors. This is likely caused by the petroleum plume reaching the backfill around the sewer line and following this more permeable pathway until an opening is found which then allows the petroleum to enter the sewer itself.
- Regulated building materials. Based on the age of the buildings/structures it is likely that regulated building materials (RBMs), including asbestos and lead-based paint, are present in numerous locations. A comprehensive RBM survey will need to be completed. Potential environmental health hazards associated with the existing buildings and structures at the former Blue Heron Paper Mill include asbestos, lead, mercury, polychlorinated biphenyls (PCBs) and other heavy metals. This is based on Wood's review of past hazardous or regulated building material surveys and limited on-site observations made in June, July, and August 2019. The health hazards are associated with a variety of asbestos-containing materials, lead-containing paints or coatings (including paint chips observed on site surfaces), and mercury- and PCB-containing building or electrical-system components.
- Filter Plant Transformers. At least two transformers are present in the water filter plant (second floor).
- Large freight elevator. Elevator is present at shared wall of the water filter plant and former fire station. The hydraulic system driving this elevator is not well defined and may include subsurface or above surface hydraulic reservoirs.
- Filter Plant pump room. The basement floor of the water filter plant was a pump room, and hydraulic systems related to the pump room are not yet defined.
- Filter Plant Water – Water in the filter plant will need to be removed. Chemical concentrations in the water are unknown.

1.4 Project Goal

Currently, the Site is zoned as "Willamette Falls Downtown District," a special district designated for open space, retail, high-density residential, office, and compatible light industrial uses. The Oregon City zoning code encourages retail, service, and light industrial uses on the ground floor and office and residential uses on upper floors. Anticipated redevelopment of the Site will occur over time, as dilapidated buildings and structures are removed, and may coincide with development of the Willamette Falls Legacy project, a trail project by Metro Regional Government to bring public access to the Falls.

2.0 Applicable Regulations and Cleanup Standards

2.1 Cleanup Oversight Responsibility

The cleanup will be overseen by the Oregon DEQ. In addition, all documents prepared for this Site will be submitted to the DEQ in electronic and hard copy form.

2.2 Cleanup Standards for Major Contaminants

Cleanup standards for the Site will be the DEQ RBC for the urban residential receptor. In addition, cleanup will be compliant with the Portland Harbor ROD (concentrations above Principal Threat Waste thresholds will be cleaned up). Analytical results will be compared to the following DEQ RBCs (May 2018):

Soil

- Soil Ingestion, Dermal Contact, and Inhalation - Urban Residential
- Soil Ingestion, Dermal Contact, and Inhalation - Occupation
- Soil Ingestion, Dermal Contact, and Inhalation - Construction
- Soil Ingestion, Dermal Contact, and Inhalation - Excavation Worker
- Vapor Intrusion into Buildings - Urban Residential
- Vapor Intrusion into Buildings – Occupational

Water

- Ingestion, Dermal & Inhalation from Tap water - Urban residential
- Ingestion, Dermal & Inhalation from Tap water - Occupational
- Groundwater in Excavation - Construction and excavation Worker
- Vapor Intrusion into Buildings - Urban residential
- Vapor Intrusion into Buildings – Occupational

The soil analytical results also will be compared against DEQ Clean Fill standards (DEQ, 2019a), Portland Basin background metals concentrations (DEQ, 2013), and Portland Harbor ROD thresholds and Cleanup levels (USEPA, January 2017).

2.3 Laws & regulations Applicable to the Cleanup

Applicable laws and regulations include Oregon Administrative Rule (OAR 340-122-0040), Federal Small Business Liability Relief and Brownfields Revitalization Act, and the Federal Davis-Bacon Act. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed. In addition, all appropriate permits (e.g. notify before you dig, soil transport/disposal manifests) will be obtained prior to the work commencing.

3.0 Evaluation of Cleanup Alternatives

The purpose of this ABCA is to define and evaluate cleanup alternatives that decrease contaminant concentrations to levels that are protective of human health and the environment.

The remedial action area consists of:

- Buildings, infrastructure, utility corridors, and soils containing COCs exceeding screening levels, that are located in the area between vacated Main, Fourth, and Water Streets, and the main office Building No. 01.

The remedial action objectives are:

- Prevent direct contact between human receptors and unsafe regulated building materials;
- Prevent direct contact between human/ecological receptors and soils and/or sediments exceeding applicable screening levels;
- Prevent petroleum vapors from migrating into indoor air (eliminate the vapor migration pathway);
- Protect Willamette River from runoff and contaminant migration; and
- Utilize sustainable (“green”) remediation/removal strategies to the maximum extent practicable.

3.1 Cleanup Alternatives Considered

The objective of each alternative is to mitigate risk from hazardous (regulated) building materials and chemical concentrations present at the Site, such that any potential exposures do not exceed levels protective of human health and the environment. Because of the structures present at the Site, the nature of the contaminants, their persistence in the environment, and the media in which the contaminants occur, only a few remedial alternatives warrant detailed evaluation. For this reason, the following remedial alternatives are evaluated for regulated building materials, soil, sediment, and groundwater in this ABCA:

The general response actions are:

- No action.
- Removal of contaminated filter media, building demolition with control of regulated building materials (asbestos, lead, and zinc), vapor mitigation (engineering controls), soil removal ("hot spot" soil only), and Institutional Controls.
- Removal of contaminated filter media, reuse of the existing buildings with abatement of regulated building materials (asbestos, lead, and zinc), vapor mitigation (engineering controls), and Institutional Controls.

3.1.1 Alternative 1: No Action.

Alternative 1, no action (e.g. leaving the Site in its current state), is the baseline against which all other alternatives will be measured.

3.1.2 Alternative 2: Removal of Contaminated Filter Media, Building Demolition, Vapor Mitigation (engineering controls), Soil Removal ("hot spot" soil only), Isolate or Remove Contaminated Sewer Line Backfill, Capping of Moderately Contaminated Soils, and Institutional Controls.

Alternative 2 is based upon DEQ requirements identified in the PPA (DEQ, 2019b). Under Alternative 2, the requirements of the PPA SOW would be met. Regulated building materials would be removed. Although some soils (and potentially perched groundwater) that exceeds RBCs protective of potential future residents and occupational Site users would be left in place, these soils would be capped, and "hot-spot" soils would be removed resulting in a reduction in contaminant mass. Specifically:

Filter media – Filter media would be removed and disposed of at an appropriate landfill.

Building demolition – Buildings would be demolished and disposed of as asbestos and lead-containing building material. A demolition survey would be done in accordance with the PPA. Demolition plans would be prepared and would include:

- Identification of building utilities and description of each utility termination
- Description of hazardous building material abatement plan
- Description of plant dewatering plan
- Description of demolition scope of work
- Description of material re-use/recycling plan
- Description of final site condition and restoration requirements.

Periphery monitoring of the work zones for air-borne asbestos would be performed during the demolition activities.

Vapor mitigation – Based on follow-up assessment of the petroleum contamination and sewer-line vapors detected at the southeast corner of the cleanup area, engineering controls would be installed at the Site on an as-needed basis (likely within utility backfill materials). These engineering controls would consist of a passive vapor mitigation system comprised of a network of perforated pipes in trenches, covered with gravel, and overlain by a heavy-duty vapor barrier. The passive venting system would allow accumulated vapors to vent to outdoor air, and if desired, could be enhanced through the use of a solar-powered low power fan to maintain a minimal negative pressure gradient in the system. Because a passive venting system is dependent upon the difference between the in-ground air pressure and the barometric pressure outside, the pressure gradient in the system can fluctuate from positive (air moving into the ground backwards through the system) to negative (air moving out of the ground as the system intends). By installing a low-pressure fan, which only requires minimal power, the system can maintain a negative pressure gradient while the fan is operational. The fans typically use less than 300 watts and can easily be tailored for solar powering. Solar power also alleviates the work and costs associated with power connections and infrastructure.

Hydraulic Systems – A large freight elevator is located at the shared wall of the water filter plant and former fire station. The basement of the water filter plant also contains a pump room with hydraulic systems. The location and condition of the hydraulic components would be assessed and decommissioned concurrent with building demolition. Any releases to the environment (soil and/or groundwater) would be mitigated as appropriate.

Soil removal and capping – After building removal, any areas of exposed soil would be sampled using incremental sampling methodology (ISM) methods to evaluate concentrations of COCs in shallow soils. Areas that exceed applicable DEQ RBCs would be capped and areas (if any) that exceed "hot-spot" thresholds or "principal threat waste" thresholds would be excavated and disposed of at an appropriate landfill.

Institutional controls - Institutional controls would consist of an Easement and Equitable Servitude (EES) that would enforce the maintenance of engineering controls and prevent use of groundwater. Prior to building demolition, a contaminated media management plan (CMMP) would be prepared for use by contractors. The EES would document the following requirements:

- Groundwater at the Site will not be extracted for drinking water, industrial use, or other purposes.
- A CMMP will be developed that will outline the location, and proper handling and disposal of soil and groundwater during construction activities at the Site.
- Vapor mitigation system will be maintained (as necessary).

3.1.3 Alternative 3: Removal of Contaminated Filter Media, Abatement of Regulated Building Materials (asbestos, lead, and zinc), Vapor Mitigation (engineering controls), Isolate or Remove Contaminated Sewer Line Backfill, Capping of all Contaminated Soils, and Institutional Controls.

Alternative 3 is a less aggressive approach and seeks to mitigate hazards in place. Regulated building materials would be abated in place, likely during sporadic repair/replacement/renovation activities over a period of many years. All contaminated soils would be capped. A groundwater monitoring network would be installed and bi-annual sampling of groundwater would commence and continue for several years.

Institutional controls would be in the form of an EES that would prevent use of Site groundwater. A CMMP would be prepared for use by future contractors at the Site.

Vapor mitigation (engineering controls) would be employed based on a follow-up assessment of the petroleum contamination and sewer-line vapors detected at the southeast corner of the cleanup area. The system would be installed at the Site on an as-needed basis (likely within utility backfill materials). Like Alternative 2, vapor mitigation would consist of a passive system comprised of a network of perforated pipes in trenches, covered with gravel, and overlain by a heavy-duty vapor barrier. If desired, the system could be enhanced through the use of a low power fan (potentially solar-powered) to maintain a minimal negative pressure gradient in the system.

3.2 Cost Estimate of Cleanup Alternatives

The remedial alternatives are defined and discussed below. A quantitative comparison of the remedial alternatives is provided in **Table 1**.

Under DEQ removal authority (OAR 340-122-0040) and USEPA guidance (USEPA, 2012; USEPA, 2014; USEPA, 2015), remedial alternatives are evaluated using the following criteria:

- Effectiveness,
- Implementability,
- Reasonableness of Cost, and
- Other Considerations (Sustainability and Susceptibility to Climate Change).

The major assumptions listed below apply to the alternatives:

- The cost estimates presented in this ABCA are engineering cost estimates with a precision of +50%/-30%.
- Buildings/Structures to be demolished or reused include:
  - #2 - Water Filter Plant
  - #3 - Control Tower
  - #4 – Fire Station
  - #5 – Office
  - #6 - Guard Shack
- Potential areas of contaminated soils (above Urban Residential RBCs) that exist beneath buildings and/or the associated parking areas will be covered by protective cap, with the exception of potential “Hot Spot” soils, which if excavated, could be disposed as non-hazardous waste.
- All costs are presented as 2019 dollars, with no discounting.
- Complete soil and groundwater plume delineation has not been completed and will not be required, especially upgradient and off site. CTGR will not be responsible for contaminants originating upgradient and off site (DEQ, 2004).
- Clean concrete from demolished buildings will be allowed to be crushed and utilized as fill on Site.

3.2.1 Effectiveness

- Alternative 1 does not eliminate the potential for Site users to come into direct contact with regulated/hazardous building materials, contaminated soil or contaminated groundwater, nor does it protect Site users from exposure to petroleum vapors migrating to indoor air. Alternative 1 does not prevent runoff of contaminants from building roofs or ground surface from reaching the Willamette River. Because Alternative 1 does not remove regulated/hazardous building materials, contamination, or eliminate human or ecological exposure pathways, and therefore is unreliable in the long-term.
- Alternative 2 is effective because removal of filter media and buildings (and associated roofs [zinc] and regulated/hazardous building materials) eliminate the potential for human and ecological exposure. Engineering controls eliminate the indoor air pathway, and institutional controls reduce the potential for Site users to come into direct contact with contaminated soil or groundwater. Alternative 2 removes the buildings, structures, and sources of contaminants and hazardous materials, and institutional controls will enforce the maintenance of the vapor mitigation system and prevent use of Site groundwater. Therefore Alternative 2 is reliable in the long-term.
- Alternative 3 is effective because removal of filter media and abatement of regulated/hazardous building materials eliminates the potential for human and ecological exposure. Engineering controls eliminate the indoor air pathway, and institutional controls reduce the potential for Site users to come into direct contact with contaminated soil or groundwater. Alternative 3 stabilizes the sources of contaminants and hazardous materials. Institutional controls will enforce the maintenance of the vapor mitigation system and prevent use of Site groundwater. Therefore Alternative 3 is reliable in the long-term.

3.2.2 Implementability

- Alternative 1 is considered easy to implement as it requires no action. Alternative 1 implementation risk is low, because no activities are conducted.
- Alternative 2 is considered relatively easy to implement because it utilizes available contractors and materials. Alternative 2 implementation risk is low. Subcontractors hired to conduct the filter removal, building demolition, and soil removal will be current with US Occupational Safety and Health Administration (OSHA) 40-Hour Hazardous Waste Operator (HAZWOPER) training. Work would be performed under a site-specific Health and Safety Plan (HASP).
- Alternative 3 is considered moderately complex to implement, because buildings are of various ages and construction. Alternative 3 implementation risk is low. Subcontractors hired to conduct the filter removal, building abatement, and installation of groundwater monitoring well network will be current with OSHA 40-Hour HAZWOPER training. Work would be performed under a site-specific HASP.

3.2.3 Cost

- Alternative 1 is estimated to cost approximately $10,000, primarily due to ongoing correspondence with local government and regulators.
- Alternative 2 is estimated to cost $1,000,000 to $1,300,000.
- Alternative 3 is estimated to cost $1,000,000 to $1,300,000.

3.2.4 Other Considerations (not included in numerical ranking score)

- Alternative 1 is not sustainable in that regulated/hazardous building materials will continue to degrade, buildings will continue to deteriorate and eventually collapse, and contaminants can migrate

towards the Willamette River. Contaminated soils/groundwater have continued potential to produce vapors that could enter indoor air.

- Alternative 2 incorporates sustainability in that:
  - Contaminant sources will be removed and therefore no long-term monitoring will be required.
  - The passive vapor mitigation system (if required) would have the option to be enhanced via low power fan (potentially solar-powered).
  - Trucking contractors hired to transport contaminated soil from the Site will be encouraged to use diesel fuel blended with 10% biofuel, particularly if transport distances are large.
  - The on-site separation of recyclable/reusable materials (concrete, metal, gravel, etc.) would be conducted to the extent practicable.
- Alternative 3 incorporates sustainability in that:
  - The passive vapor mitigation system (if required) would have the option to be enhanced via low power fan (potentially solar-powered).

Changing climate concerns have been considered in the design and selection of a cleanup plan for the Site (USEPA, 2014; USEPA 2015). Considerations are based on predications of long-term changes to Pacific Northwest climate which include: increase in average temperature of up to 5 degrees Fahrenheit by the 2080s, reduced winter snow pack, rising sea level (several inches to a few feet by end of century), and the possibility of enhanced seasonal precipitation cycle (wetter autumn/winter and drier summer), and more intense rainfall events (CIG, 2009). None of the Alternatives is expected to be adversely affected by climate change because no Site-specific risk factors have been identified for the Site with respect to potential climate change.

3.3 Preferred Remedial Alternative

The preferred remedial alternative is Alternative 2, which, as can be seen in Table 1, has the highest cumulative score (24) compared to the Alternative 1 (20) and Alternative 3 (21). Alternative 2 outranks or equals the second highest alternative, Alternative 3, in all criteria.

We appreciate the opportunity to be of service to the CTGR on this project. If you have any questions or comments regarding this report, please contact the undersigned at (503) 639-3400.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.	**Reviewed by:**
[Draft]	[Draft]
John L. Kuiper, RG Principal Geologist	Jack Spadaro, PhD, CHMM Associate Scientist

4.0 References

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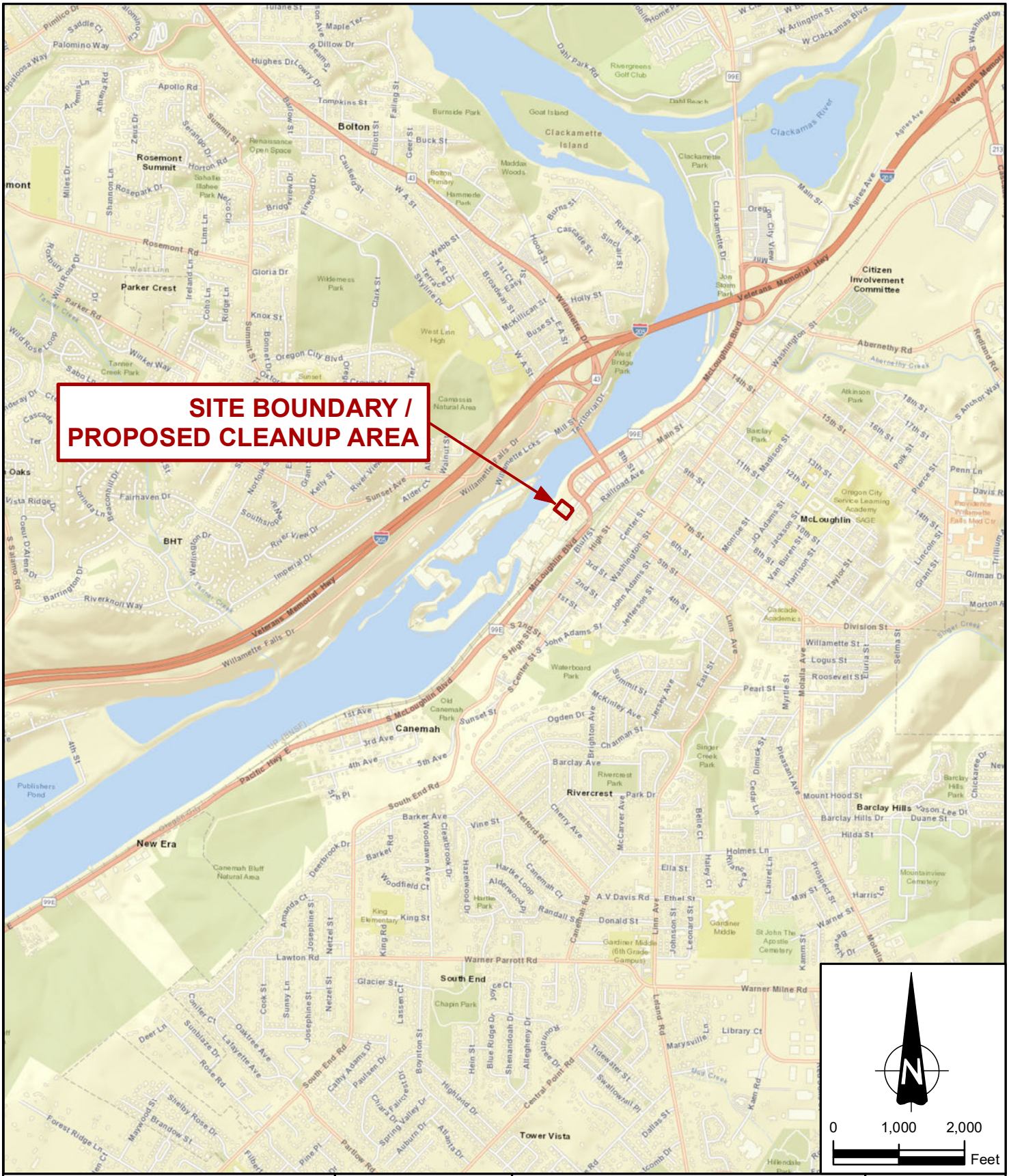
5.0 Limitations

This Analysis of Brownfields Cleanup Alternatives (ABCA) was prepared exclusively for Confederated Tribes of the Grand Ronde (CTGR) Community of Oregon by Wood Environment & Infrastructure Solutions, Inc. (Wood). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Wood services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This Initial Summary Report is intended to be used by CTGR for the property located at 419-427 Main Street in Oregon City, Oregon 97045 only, subject to the terms and conditions of its contract with Wood. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

The findings contained herein are relevant to the dates of the Wood Site visits and should not be relied upon to represent conditions at later dates. In the event that changes in the nature, usage, or layout of the property or nearby properties are made, the conclusions and recommendations contained in this report may not be valid. If additional information becomes available, it should be provided to Wood so the original conclusions and recommendations can be modified as necessary. Please be aware that Wood was not present at the Site during all phases of the investigations, nor have we reviewed all work that has been conducted by others at the Site. Wood services have been performed in accordance with the normal and reasonable standard of care exercised by similar professionals performing services under similar conditions in similar geographic locations. Except for our stated standard of care, no other warranties or guarantees are offered as part of Wood's contracted services.

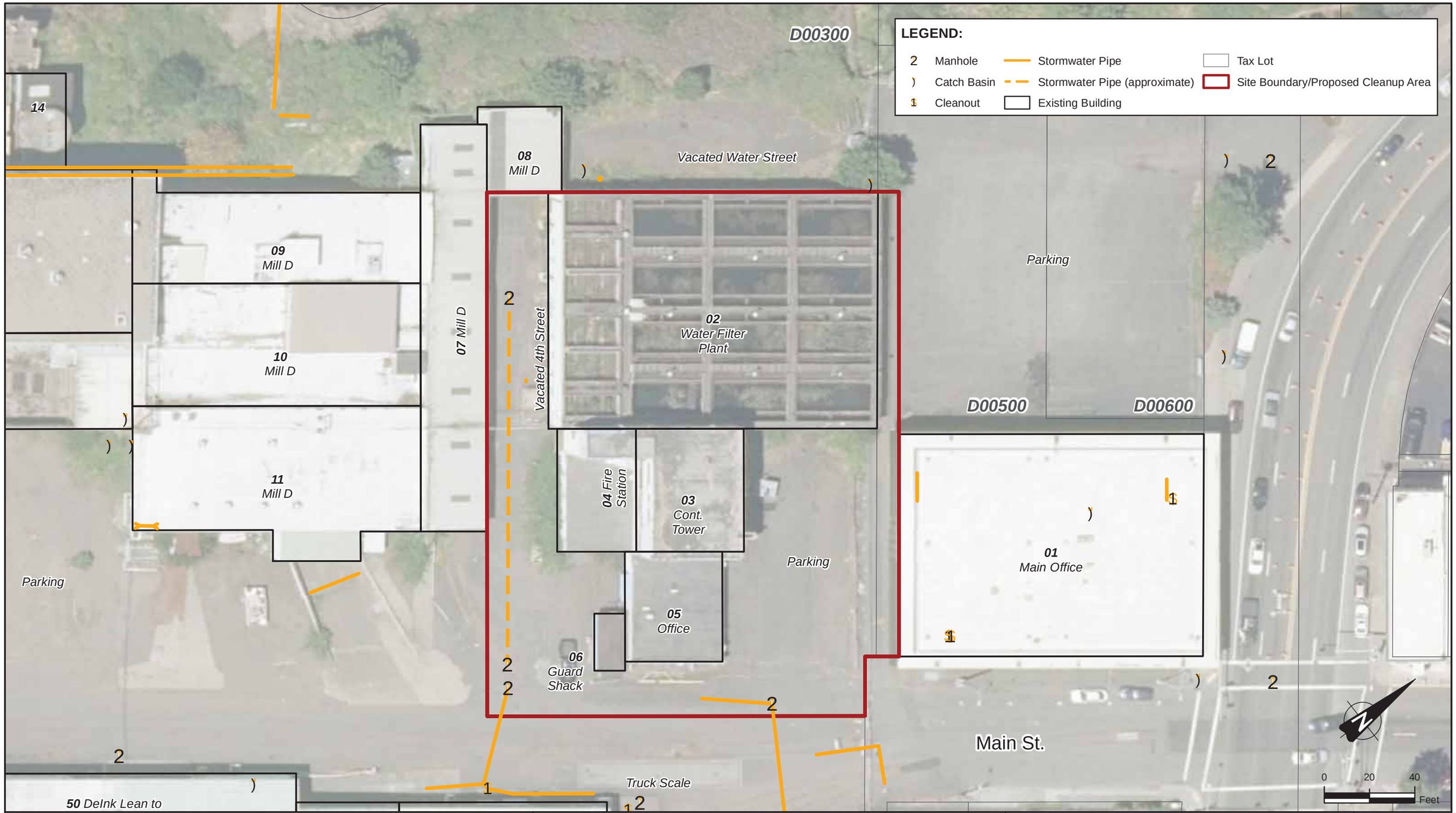
Figures



CONFEDERATED TRIBES OF THE GRAND RONDE	wood.	ABCA FORMER BLUE HERON PAPER MILL 419 MAIN STREET OREGON CITY, OREGON	DATE NOVEMBER 2019
			SCALE 1 " = 2,000 feet
Wood Environment & Infrastructure Solutions, Inc. 7376 S.W. Durham Road Portland, OR 97224		SITE LOCATION MAP	PROJECT NO. 961M13558.04
			FIGURE 1

DRAWN BY: SD CHECKED BY: JK

K:\13000\13500\13558\dwg_ABCA\Figure 1 - Site Location Map.mxd - patrick.mccarthy - 11/21/2019 - 10:45:24 AM



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DRAFT

CONFEDERATED TRIBES
OF THE GRAND RONDE

Wood Environment &
Infrastructure Solutions, Inc.
7376 S.W. Durham Road
Portland, OR 97224

wood.

ABCA
FORMER BLUE HERON PAPER MILL
419 MAIN STREET, OREGON CITY, OREGON

SITE PLAN

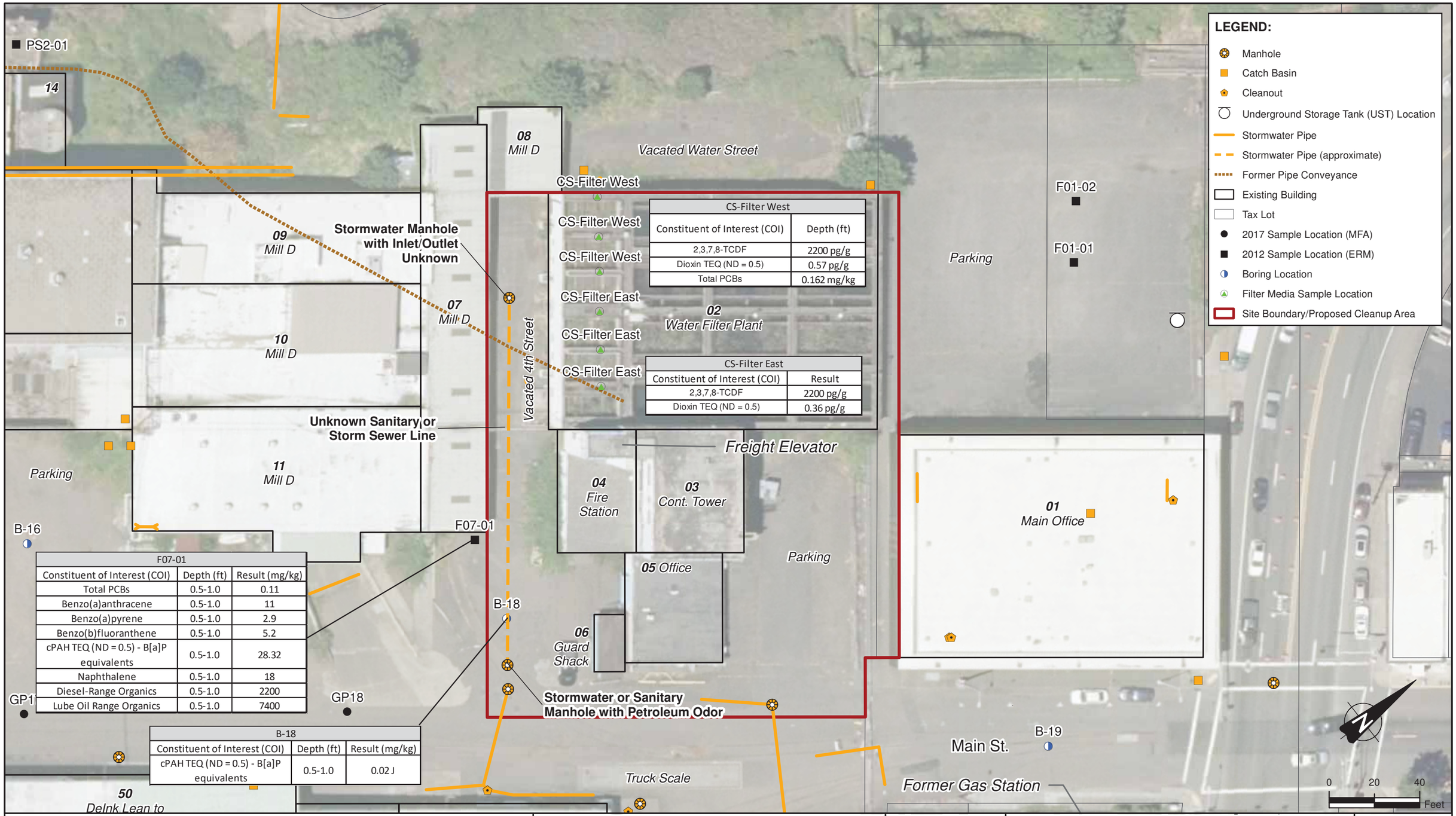
DATE
NOVEMBER 2019

SCALE
1 " = 40 '

PROJECT NO.
961M13558.04

FIGURE
2

K:\13000\13500\13558\dwg_ABCA\Figure 2 - Site Plan.mxd - patrick.mccarthy - 11/21/2019 - 10:45:03 AM



CS-Filter West	
Constituent of Interest (COI)	Depth (ft)
2,3,7,8-TCDF	2200 pg/g
Dioxin TEQ (ND = 0.5)	0.57 pg/g
Total PCBs	0.162 mg/kg

CS-Filter East	
Constituent of Interest (COI)	Result
2,3,7,8-TCDF	2200 pg/g
Dioxin TEQ (ND = 0.5)	0.36 pg/g

F07-01		
Constituent of Interest (COI)	Depth (ft)	Result (mg/kg)
Total PCBs	0.5-1.0	0.11
Benzo(a)anthracene	0.5-1.0	11
Benzo(a)pyrene	0.5-1.0	2.9
Benzo(b)fluoranthene	0.5-1.0	5.2
cPAH TEQ (ND = 0.5) - B[a]P equivalents	0.5-1.0	28.32
Naphthalene	0.5-1.0	18
Diesel-Range Organics	0.5-1.0	2200
Lube Oil Range Organics	0.5-1.0	7400

B-18		
Constituent of Interest (COI)	Depth (ft)	Result (mg/kg)
cPAH TEQ (ND = 0.5) - B[a]P equivalents	0.5-1.0	0.02 J

COI concentration (in mg/kg) exceeds either the appropriate DEQ Risk Based Concentration Screening Criteria or the Portland Harbor ROD Cleanup Level

DRAFT

DRAWN BY: PM CHECKED BY: JKH

CONFEDERATED TRIBES
OF THE GRAND RONDE

Wood Environment &
Infrastructure Solutions, Inc.
7376 S.W. Durham Road
Portland, OR 97224

wood.

ABCA
FORMER BLUE HERON PAPER MILL
419 MAIN STREET, OREGON CITY, OREGON

SITE PLAN AND PREVIOUS
ENVIRONMENTAL INVESTIGATIONS

DATE
NOVEMBER 2019

SCALE
1 " = 40 '

PROJECT NO.
961M13558.04

FIGURE
3

K:\13000\13500\13558\dwg_ABCA\Figure 3 - Site Plan anad Previous Env Investigations.mxd - patrick.mccarthy - 11/21/2019 - 10:43:32 AM

Tables

TABLE 1 - Ranking of Alternatives
Former Blue Heron Paper Mill
Oregon City, Oregon

Alternative	Remediation Plan	RANKING						Total Score
		Effectiveness		Implementability		Estimated Cost		
		1 = low effectiveness 10 = high effectiveness		1 = complex implementability 10 = easy implementability		1 = high cost 10 = low cost		
1	No action	**1**	Leaves all contaminated media in place, does not eliminate the potential for direct contact with soil, groundwater, or vapor. Does not reduce plume mobility.	**10**	Easy	**9**	$10,000 (DEQ and other administrative costs for documenting no action)	**20**
2	Removal of contaminated filter media, building demolition, vapor mitigation (engineering controls), soil removal ("hot spot" soil only), capping of moderately contaminated soils, and Institutional Controls. Plan would include demolishing buildings and floor slabs and dispose of a asbestos and lead-containing materials. This removal would also allow access to impacted "source" soils and utilities. Excavate source soils that are significant (e.g. "hot spot" soils), flush contaminated sediments from storm sewer lines, install sewer ventilation system, confirmatory soil, sewer line vapor, and groundwater sampling, Institutional Controls consisting of Easement and Equitable Servitudes (EES) that will enforce the maintenance of a ventilation system and prevent use of site groundwater.	**9**	Removes all hazardous building materials,eliminates/prevents releases to environment, removes most contaminant mass in soil, and prevents residual soil vapor from reaching building occupants.	**8**	Relatively easy. Utilizes available contractors and materials.	**7**	Approximately $1,000,000 to $1,300,000 depending on amount of vapor mitigation effort required (includes cleanup plans, removal of building/slab [clean concrete to be crushed and re-used as fill on Site], removal of hot-spot soils, vapor confirmation sampling, and reporting) (includes $20,000 in DEQ oversight costs)	**24**
3	Removal of contaminated filter media, abatement of regulated building materials (asbestos, lead, and zink), vapor mitigation (engineering controls), capping of all contaminated soils, and Institutional Controls.	**8**	Immobilizes all hazardous building materials, eliminates/prevents releases to environment, and prevents residual soil vapor from reaching building occupant	**6**	Moderately complex - buildings are of various ages and have undergone prior renovations.	**7**	Approximately $1,000,000 - $1,300,000 (includes cleanup plans, Ongoing abatement performed in sporadic fashion over many years, long-term groundwater monitoring) (includes $40,000 in DEQ oversight costs)	**21**

Appendix A
Site Photographs

Photo 1:
Water Filtration Plant and Control Tower (view to east). November 4, 2019.

Photo 2:
Office (view to south). November 4, 2019.

wood.

7376 SW Durham Road
Portland, Oregon 97224

PROJ. NO.	9-61M-135580
PROCESSED	JK
DATE	November 2019
PAGE	1

CTGR
Former Blue Heron Paper Mill
Oregon City, Oregon

PHOTOGRAPH LOG

Photo 3:
Back/river side of Water Filtration Plant (view to north). November 4, 2019.

Photo 4:
Water Filtration Plant (southeast corner), with downspouts, roof-drain treatment [black corrugated pipe and planter bin - not functional] and catch basin [foreground]). November 4, 2019.

Photo 5:
Manholes (foreground) near Guard Shack (background). View is to north. Nearest manhole (labeled STM) has petroleum odor emanating. November 4, 2019.

OMB Number: 4040-0004
Expiration Date: 12/31/2019

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 12/03/2019

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Confederated Tribes of the Grand Ronde Community of Oregon

* b. Employer/Taxpayer Identification Number (EIN/TIN):

* c. Organizational DUNS: 1611553460000

d. Address:

* Street1: 9615 Grand Ronde Road
Street2:
* City: Grand Ronde
County/Parish: Polk
* State: OR: Oregon
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 97347-9712

e. Organizational Unit:

Department Name: Public Works & Engineering

Division Name: Tribal Government

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Mr.
* First Name: Kim
Middle Name:
* Last Name: Rogers
Suffix:

Title: Planning & Grants Manager

Organizational Affiliation: Confederated Tribes of Grand Ronde

* Telephone Number: 503-879-2250
Fax Number: 503-879-2263

* Email: kim.rogers@grandronde.org

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

I: Indian/Native American Tribal Government (Federally Recognized)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

*** 12. Funding Opportunity Number:**

EPA-OLEM-OBLR-19-07

* Title:

FY20 GUIDELINES FOR BROWNFIELD CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Water Street Block (Former Blue Heron Paper Mill) Cleanup Project

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: OR005 * b. Program/Project: OR005

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 10/01/2020 * b. End Date: 09/30/2023

18. Estimated Funding ($):

* a. Federal	500,000.00
* b. Applicant	100,000.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	600,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Ms. * First Name: Cheryle

Middle Name: A.

* Last Name: Kennedy

Suffix:

* Title: Tribal Council Chairwoman

* Telephone Number: 503-879-2301 Fax Number: 503-879-2263

* Email: CTGR.grant@grandronde.org

* Signature of Authorized Representative: Cheryle A Kennedy * Date Signed: 12/03/2019